NEW HAMPSHIRE
Patient Care Protocols

First Responder
EMT-Basic
EMT-Intermediate
EMT-Paramedic

Approved by the
Medical Control Board
2005 Version 3

The New Hampshire Bureau of EMS has taken extreme caution to ensure all information is accurate and in accordance with professional standards in effect at the time of publication. These protocols MAY NOT BE altered or modified. Contact your medical resource hospital in order to use these protocols.

PROTOCOL CHANGES

The next full edition of these protocols will be the 2007 - 2008 Edition, which will be available on about January 1, 2007.

If changes or corrections are needed before that date, they will be made on the master copy of the 2005 - 2006 New Hampshire Patient Care Protocols which is posted on the NHEMS website:
http://www.state.nh.us/safety/ems/protocol.html

On September 15, 2005, the Medical Control Board made the following changes:

Page 43 Protocol 2.13: Changed the dose of Granisetron HCL to be:
Granisetron HCL 0.1mg - 1mg IV." One time dose.

Page 54 & 55 Protocols 4.0 & 4.0P: Removed the words 'non-petroleum'" from the Thoracic Injuries protocols.

On May 19, 2005, the Medical Control Board made the following changes:

Page 15 Protocol1.0 In the first paragraph after "procedures" add: "for which the provider has been trained and certified or approved".

Page 24 Protocol2.0P:Removed "(including systolic <90)"
Basic/Intermediate Standing Orders
Weight range for Epi-Pen Jr changed to "for patients > than 10 kg and fit on a pediatric length based resuscitation tape (Broselow tape)."
Paramedic Standing Orders
"systolic blood pressure >90 mmHg" changed to "hemodynamic status."
Diphenhydramine dose changed to 1mg/kg IV/IM
Epinephrine dose changed to 0.01 mg/kg

Page 27 Protocol 2.2: Title changed to add ADULT and PEDIATRIC
Restraints note moved under Basic/Intermediate Standing Orders
"Adult" added to Paramedic Standing Order for medication administration

Page 30 Protocol 2.3P: Paramedic Standing Order: Changed <30 days dose to read," 0.25mg/kg IVP"

Page 31 Protocol 2.4: Title changed to add ADULT and PEDIATRIC Added to Basic Standing Order, "minimize on scene time"

Page 32 Protocol 2.5 :Title changed to add ADULT and PEDIATRIC
Paramedic Adult Standing Orders say "diazepam 2mg or 5 mg IM" changed to "2 mg IV or 5 mg IM."

Page 33 Protocol 2.6: Title changed to add ADULT and PEDIATRIC

Page 35 Protocol 2.8P: Paramedic Standing Order changed to, "epinephrine (1:10,000) 0.01mg/kg IV/ET (0.1ml/kg)." The Epi volume dose should be 0.1 "ml/kg", not "ml/mg" This needs to be changed here and in the protocol. See for comparison Allergic Reaction and Bradycardia.

Page 36 Protocol 2.9: Title changed to add ADULT and PEDIATRIC

"Paramedic Standing Orders" be changed to "Paramedic Adult Standing Orders

"Removed "concurrent oxygen administration at 2 lpm via NC…"

Page 39 Protocol 2.11: Poison Control telephone number changed to 800-222-1222.
Activated Charcoal to have sorbitol in it.

Paramedic Standing Order removed glucagon infusions

Page 40 Protocol 2.11P: Poison Control telephone number changed to 800-222-1222.
Activated Charcoal to have sorbitol in it.
Paramedic Standing Order removed glucagon infusions

Page 41 Protocol 2.12: Paramedic Standing Orders: IM/IN added to midazolam's routes.

Page 42 Protocol 2.12P: Diazepam PR dose increased to 0.5mg/kg.
Added "Any of the above may be repeated in 5 minutes once" referring to the benzodiazapines.

Page 43 Protocol 2.13: Title changed to add ADULT and PEDIATRIC
Paramedic Standing Order - Adult:
Added "May repeat any of the medications once after 10 minutes if nausea persists."
**Added "Granisetron HCL 0.1mg IV." One time dose.*
***Added "Dolasetron 12.5 mg IV" One time dose*.
*These medications have been approved by the Medical Control Board and are awaiting approval from the NH Board of Pharmacy. (NH Board of Pharmacy approved August 10, 2005)

Paramedic Standing Order –Pediatric: Corrected black box warning to reflect no phenergan to children less then 2 years old. In the actual protocol, it does not appear that this change was made.

Page 44 Protocol 3.0: Paramedic Standing Order: Glucagon changed to 2 - 5 mg for consistency with the overdose protocols.

Page 46 Protocol 3.1: Title changed to add ADULT
Added "50J" to synchronized cardioversion for A Flutter

Page 47 Protocol 3.1P: Changed title to Initial Caps.

Page 48 Protocol 3.2: Title changed to add ADULT
Basic Standing Orders: nitroglycerin admin changed to "every 5 minutes up to 3"
Added "Minimize on scene time."

Page 49 Protocol 3.3: Title changed to add ADULT

Page 50 Protocol 3.4: Added to Intermediate manual defibrillation and joules or biphasic equivalent
VF/Pulseless VT to Intermediates with "Epinephrine 1 mg IV or 2 mg ETT repeat every 3-5 minutes (if trained)."

General cleaning up

Page 52 Protocol 3.4P: Added 2J/kg repeat at 4J/kg
Huge clean up

Page 56 Protocol 4.1: Title changed to add ADULT and PEDIATRIC

Page 57 Protocol 4.2: Title changed to add ADULT and PEDIATRIC
Added "repeat every 5 minutes as needed" added to Paramedic Standing Order for proparacaine.

Page 60 Protocol 4.4: Title changed to add ADULT and PEDIATRIC
Added under Basic Standing Order
"Avoid hyperventilation unless clear signs of cerbral herniation are present" added.

Page 83 Protocol 6.5 (<> Indicates added verbage)

Under "When Not to Start"
<NEONATE DEATH. A neonate who is apneic, asystolic (heart beat and umbilical cord pulse) and meets the nontrauma criteria in DOA may be presumed dead.>

Under "Declaring Death in the Field"
Do not initiate resuscitation when the patient is apneic and pulseless and other signs of death are present:
Rigor mortis and/or lividity <or neonatal maceration>

NOTES
<Neonates: Contact medical resource hospital if indications are present that gestational age is less than 22 weeks and neonate shows signs of obvious immaturity (translucent, gelantinous skin; lack of fingernails; fused eyelids). In some cases, resuscitaion and transport may be initiated. Activation of family support systems may be beneficial.>

(Delete the word "SIDS" and start the sentence with "Even in the case of an infant, death may be declared ....)

Page 88 Protocol 6.9: Removed the last paragraph.

Page 89 Protocol 6.10: Changed “the pulse of greater then 100 will be relieved from duty” to “pulse greater than 100 should have a longer rest period.”

Page 100 Protocol 8.2: Title changed to add “MCI”
Under paramedic standing order: removed “if Mark 1 kit are unavailable or IV has been obtained.” Replaced with ”if symptoms persist after the administration of 3 Mark 1 Kits then:”

Page 101 Protocol 8.2P: Title changed to add “MCI”
Under paramedic standing order, Atropine’s maximum dose changed to read, “single” dose 5 mg.

Final notes: Throughout the document general editing was done for consistency. You will find that “minute” or “minutes” are spelled out instead of abbreviated, and IO is removed from reference, except in protocol 1.0, where it is clearly stated that “Routes of medication administration when written as “IV” can also include “IO”. ET was changed to ETT.

On March 19, 2005, the Medical Control Board made the following changes:

All references to the Broselow tape have been changed to:
"a pediatric length based resuscitation tape (Broselow tape)."

Page 12: Acknowledgments:
Spelling corrections were made to names as advised.

Page 26: Under Paramedic Standing Orders:
Consider epinephrine **(1:1,000) 0.01**mg/kg (0.01ml/kg)

Page 28: Under Paramedic Standing Orders:
Flumazenil 0.2 mg IV over 30 seconds to reverse the effects of benzodiazepines.
Diphenhydramine 50 mg IV/IM for acute dystonic reaction to haloperidol.

Page 39 & 40: Under Basic Standing Orders:
Consider activated charcoal 25 - 50 gm PO

Page 39 Under Paramedic Standing Orders:
The following has been REMOVED:
Benzodiazepine: Flumazenil 0.2 mg IV over 30 seconds repeated as needed.

Page 40: Under Paramedic Standing Orders:
The following has been REMOVED:
Benzodiazepine: Flumazenil 0.01 mg/kg IV, max single dose of 0.2 mg, repeat if necessary.

Page 44: Under Paramedic Standing Order:
Consider atropine 0.5mg IVP (1 mg via ETT) every 3-5 min to total of 0.04mg/kg.

Page 46: Under Paramedic Standing Order For PSVT or narrow complex tachycarida, consider:
Adenosine 6 mg rapid IVP, repeat dose of 12 mg X 2.

Page 43: Under Paramedic Pediatric Standing Orders:
For Patients greater then 2 years of age:
Promethazine 0.25mg/kg IV/IM.

FDA: Caution should be exercised when administering phenergan to pediatric patients 2 years of age and older. It is recommended that the lowest effective dose of phenergan be used in pediatric patients 2 years of age or older.

Page 48: Under Paramedic Adult Standing Orders:
If IV nitroglycerin is unavailable, then nitroglycerin paste 1 - 2 inches transdermal.

Page 50: Under Intermediate Standing Orders for PEA:
If Bradycardic: Atropine 1 mg IV or 2 mg ETT may repeat every 3-5 minutes to total of 3mg
Under Paramedic Standing Orders for PEA:
Change PEA to ASYSTOLE.

Page 51: Under Paramedic Standing Orders For post-resuscitation hypotension with normal heart rate:
Phenylephrine 40 - 180 mcg/min infusion.

Page 64: Under Nasotracheal Intubation Procedure:
Patient must be 12 years of age AND greater then the length of a pediatric length based resuscitation tape (Broselow tape)

Page 64: Combitube Procedure:
Patient must be > 5 feet tall.

Page 66: Under Needle Cricothyrotomy:
Using a syringe and needle system or commercial equivalent insert the needle through the cricothyroid membrane perpendicular to the surface of the membrane.

Page 66: Under Surgical Cricothyrotomy:
Management of an airway when standard airway procedures cannot be performed or have failed in a patient greater then the length of a pediatric length based resuscitation tape (Broselow tape).

Page 66: Under Surgical Cricothyrotomy:
This protocol is currently under review by the Medical Control Board.

Page 82: “PORT” (Physician Order Regarding Treatment) Pink Card

Pages 94 & 107: *APPROVED MEDICATIONS

In the interfacility transfer setting where the medication is ordered and initiated in the health care facility or the home health care setting (i.e. hospice or home nursing care) prior to transfer, it is within the scope of practice of the paramedic to continue that medication during transfer.

Page 106: Trade name of metoclopramide is change to REGLAN.

Message to the New Hampshire EMS Community from the State EMS Medical Director

Dozens of EMS providers, physicians, and BEMS staffers have contributed thousands of hours to developing these new protocols, a labor of love. We who use the *NH Patient Care Protocols* owe them a profound expression of thanks.

This 2005 - 2006 edition of the *Protocols* represents something of a landmark as it is the first to be produced on a scheduled two-year cycle, with planning, development and implementation all falling more or less within their assigned place in the cycle. This edition is also the first that will be posted on the Internet.

You will find nothing radically new about this edition of the *Protocols*. In fact, a superficial skimming might suggest less progress than actually has been made.

Some changes, such as the elimination of nearly all "on-line-medical-control-required protocols", acknowledge the increasing professionalism of EMS providers. Other changes, such as maintenance of previously initiated medications during Interfacility Transfer by paramedics, were made at the request of members of the EMS community. Still other changes, such as expanded protocols for mass casualties and weapons of mass destruction, and a protocol for management of Taser injuries, reflect the troubled times in which we live.

The next two-year protocol development cycle promises to be an exciting one. There is hope in the air for a method of addressing the evidence base – or lack of it – underlying EMS protocols. Protocols are becoming more statewide, and could be completely so within a year. Various forms of expanded scope of practice beckon. What do you think? The Medical Control Board needs your ideas.

Douglas McVicar, MD
Chairman, NH EMS
Medical Control Board

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ACKNOWLEDGMENT

The revision of the 2005 New Hampshire Patient Care Protocols is the product feedback and contributions from many providers across the system. It was their input that helped guide the Medical Control Board's Protocol Development Subcommittee, who without their dedication and commitment, this document would not have been possible. Congratulations on a job well done!

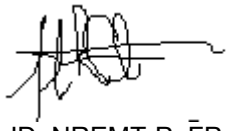
Protocol Subcommittee Members:

Donavon Albertson, Chair – Portsmouth Regional Hospital
John Clark – New Hampshire Bureau of EMS
Tom D'Aprix – Elliot Hospital
Stephanie Dornsife – American Medical Response
Jeanne Erickson – Speare Memorial Hospital
Chris Fore – Concord Hospital & Concord Fire Department
Matt Fulton – Memorial Hospital
Shawn Haggart – Derry Fire Department
David Hogan – DiLuzio Ambulance
Janet Houston – New Hampshire EMS for Children
Pat Lanzetta – Frisbe Memorial Hospital
Doug Martin – Frisbe Memorial Hospital
Jim Martin – St. Joseph Hospital
Will Owen – New Hampshire Bureau of EMS
Eric Shelberg – Milford Ambulance
Bill Siegart – Exeter Hospital
David Tauber – Advanced Life Support Institute
Jack Webb – Derry Fire Department

DEDICATION

A child reminds us that playtime is an essential part of our daily routine. Taking care of an injured child is one of the hardest things that EMS providers are ever called upon to do. The EMS system of New Hampshire has demonstrated their commitment to these children by ensuring that they receive the most appropriate and efficient care.

It is the children that make our jobs worth doing. These protocols are dedicated to all of the children of New Hampshire, especially to my daughter Caitlin - for all of the joy and richness she brings to my life.



John R. Clark, JD, NREMT-P, FP-C
2003 - 2005 ALS Coordinator

PREFACE

All licensed EMS providers functioning within the New Hampshire EMS system will be required to be familiar with the contents of this document pertinent to their level of training.

It is understood that First Responders will function under the EMT-B standing orders up to the training outlined by the United States Department of Transportation (DOT) First Responder curriculum and American Heart Association guidelines for Healthcare Provider CPR training as defined in Saf-C 5901.31. It is assumed that the EMT-I standing orders include those listed as EMT-B standing orders, and EMT-P standing orders include those listed as EMT-B and EMT-I standing orders. The sequence of orders in these protocols is not necessarily the order in which they might be executed.

It is also important to note that the standing orders listed in this document are not orders that must be carried out. They are orders that may be carried out at the discretion of the EMT without the need for on-line Medical Control. EMTs at any level of training are encouraged to contact on-line Medical Control in cases where they feel that additional treatment is warranted beyond standing orders, cases where there is uncertainty regarding treatment (e.g. age or size appropriateness for pediatric patient procedure), medicolegal or jurisdictional issues.

First Responders, EMT-Bs & EMT-Is are encouraged to consider timely ALS or Paramedic involvement. All providers are urged to consider the appropriate use of air medical transport and transportation to definitive care when indicated.

The revisions to the protocols for 2005 attempted to take into consideration local preferences and subtle nuances in the application of certain therapies. With this in mind, the protocol review subcommittee of the MCB attempted to provide a variety of options to meet the needs of local medical directors when selecting medications for their catchment area. For example, the seizure protocols reads as follows:

> *If generalized seizure activity is present, consider:*
> *Lorazepam 1-2 mg IV or IM repeated every 5 minutes to a total of 8 mg, or*
> *Diazepam 5 mg IV (then 2.5 mg IV every 5 minutes to total of 10 mg), or*
> *Midazolam 1 – 2.5 mg IV repeated every 5 minutes or until seizure activity is abolished.*

This use of “or” was employed to allow medical directors, MRH’s and their pharmacies to collaboratively determine what benzodiazepine would be practical for use by providers in that catchment area – not to imply that one service would need to carry all of those agents.

It is understood that emergency care begins when a patient accesses the system. This means that the telecommunicators at the Bureau of Emergency Communications are integral to effective care by timely notification of the appropriate Local Dispatcher as well as by initial instructions offered via Emergency Medical Dispatch algorithms. Information will be offered via the EMD priority reference system including dispatch determinant descriptors to local dispatch operators for use by field units as local authorities deem appropriate.

Section 6 of the Protocols is offered in the hopes of being helpful in specific clinical circumstances, challenging or dangerous situations as well as in areas of expanding EMS activity. They are intended as “teaching” materials to expand on areas that the MCB believed additional detail was beneficial.

The January 2005 edition of Protocols includes multiple revisions prompted by evolving science and our aspiration to be guided by evidence-based medicine grounded in the practical wisdom of field experience. Evaluation of the data collected from the TEMSIS project will also help guide the next series of revisions.

ROUTINE PATIENT CARE GUIDELINES 1.0

All levels of provider will complete an initial & focused assessment on every patient, and as standing order, use necessary and appropriate skills and procedures for which the provider has been trained and certified or approved to maintain the patient's airway, breathing and circulation.

INITIAL ASSESSMENT

SCENE SIZE UP

Assess the scene for safety, mechanism of injury, and number of patients.
Notify the receiving facility as early as possible.
Request additional resources as needed: e.g. ALS intercepts, air medical transport, additional ambulances, extrication, hazardous materials team, etc.
Use Incident Management/Command System (IM/CS) when possible.

LEVEL OF CONSCIOUSNESS

Manually stabilize the patient's cervical spine if trauma is involved or suspected.
Assess level of consciousness using the AVPU scale.

AIRWAY

Assess the patient for a patent airway.
Open the airway using a head-tilt/chin-lift, or a jaw thrust if suspicious of cervical spine injury.
Suction the airway as needed.
Consider an oropharyngeal or nasopharyngeal airway.
Consider advanced airway interventions as appropriate and if trained in use.

BREATHING

Assess patient's breathing taking note of rate, rhythm and quality of the respirations. Assess lung sounds.
Look for nasal flaring or accessory muscle usage.
Assess the chest for symmetrical chest rise, intercostal or supraclavicular retractions, instability, open pneumothorax, tension pneumothorax or other signs of trauma.
Treat foreign body airway obstruction in accordance with current guidelines.
Assist ventilations when outside the ventilation guideline for pediatrics, when the respiratory rate is less than 10 per minute or greater than 40 for adults or the patient exhibits signs of impending respiratory failure.

CIRCULATION

Assess the patient's pulse taking note of rate, rhythm and quality.
Look for and control any obvious gross bleeding.
Assess patient's skin color, temperature and moisture.
IV access and fluid resuscitation as appropriate for the patient's condition per appropriate protocol. An IV for the purposes of these protocols is a saline lock or IV line with 0.9% NaCl (Normal Saline) @ KVO and an attempt to obtain a blood sample. After IV is established, administer fluids to maintain systolic blood pressure >90 mmHg. Routes of medication administration when written as "IV" can also include "IO".

Apply AED and initiate cardiopulmonary resuscitation in accordance with current guidelines if required.

MAKE TRANSPORT DECISIONS EARLY

Which hospital?
Normal priority or "Load and Go"?
Is an ALS or paramedic intercept indicated?
Is the patient a candidate for air medical transport?

FOCUSED ASSESSMENT & TREATMENT

Obtain chief complaint, history of present illness and prior medical history.
All patients will receive a physical assessment as is appropriate for their presentation.
Provide oxygen therapy as appropriate for the patient's condition.
Determine level of pain.
Consider treating anxiety to facilitate patient care (See Behavioral Emergencies Protocol – 2.2).
Apply cardiac monitor when available and appropriate. (Basic and Intermediate providers may obtain EKG print-out).
Control active bleeding using direct pressure, elevation, pressure bandages, and pressure points.
Fully immobilize spine as indicated. (See Advanced Spinal Assessment protocol 6.6)
Splint, elevate and apply cold packs to swollen deformed extremities. Apply a traction splint for suspected femur fracture. Assess and document CSMs before and after immobilization.
Bandage lacerations and abrasions.
Cover evisceration with an occlusive dressing and cover to prevent heat loss.
Stabilize impaled objects. Do not remove impaled object unless it interferes with CPR or your ability to maintain the patient's airway.
Perform serial exams and monitor patient enroute to the hospital.

OBTAIN VITAL SIGNS

Monitor vital signs a minimum of every 15 minutes (5 minutes if the patient is unstable). Include:
Level of Consciousness.
Skin color, temperature, and moisture.
Respiratory rate, pulse rate, blood pressure.
SpO2.
Blood glucose sample if indicated.
Temperature if fever suspected.

Refer to the appropriate protocol(s) for further treatment options.

PEDIATRIC ASSESSMENT

PEDIATRIC DEFINITIONS

Assessment of pediatric patients must take into account the characteristics of a child's anatomy and physiology at each stage of development.

Medical

For the purposes of the protocol, a "pediatric patient" is defined as a child who fits on the Broselow tape (36 kg or 145 cm). If longer than the Broselow tape, they are considered an adult. Use of a Broselow tape is recommended if administering medications or performing other invasive procedures on all pediatric patients.

While this recommendation does not address some emotional and developmental issues, for most therapies, the use of length-based determination of equipment and medications is evidence based. Use of the Broselow tape is particularly helpful in a situation where there is no confirmed weight or age (e.g. in a disaster setting).

Legal

In the case of behavioral or emotional problems, a pediatric patient is defined as any child less than 15 years of age.

The legal definition of a child is one who has not yet reached his/her eighteenth birthday and is not emancipated.

With the exception of life-threatening emergencies, EMS personnel are to attempt to contact the child's parent or legal guardian and obtain the guardian's informed consent to treat and transport the child.

Interpreting children's vital signs and symptoms as though they were an adult may result in an inaccurate assessment and incorrect treatment.

PEDIATRIC VENTILATION GUIDELINES

	Respiratory Rate		Ventilation
Age	Too Slow	Too Fast	Breaths/Minute
Newborn	< 30	>80	40-60
Infant	<20	>70	30-40
1-6 Years	<16	>40	20-30
6-12 Years	<12	>30	16-20
12-16 Years	<10	>24	12-16

PEDIATRIC VITAL SIGNS BY AGE

Age	Heart Rate		Respiratory	Systolic BP	
	Avg.	Range	Range	Avg.	Range
Newborn	140	90-170	40 - 60	72	52-92
1 month	135	110-180	30 - 50	82	60-104
1 year	120	80-160	20 - 30	94	70-118
2 years	110	80-130	20 - 30	95	73-117
4 years	105	80-120	20 - 30	96	65-117
6 years	100	75-115	18 - 24	97	76-116
8 years	90	70-110	18 - 22	99	79-119
10 years	90	70-110	16 - 20	102	82-122
12 years	85	60-110	16 - 20	106	84-128
14 years	80	60-105	16 - 20	110	84-136

APGAR SCORES

Sign	Score=0	Score=1	Score=2
Heart Rate	Absent	Below 100	Above 100
Respiratory Effort	Absent	Weak, irregular, or gasping	Good, crying
Muscle Tone	Flaccid	Some flexion of extremities	Well flexed, or active movements of extremities
Reflex Irritability	No response	Grimace or weak cry	Good cry
Color	Blue all over, or pale	Central cyanosis	Pink all over

PEDIATRIC GLASGOW COMA SCORE

	Infants		Children
E Y E	Spontaneous To Speech/Sound To Pain No Response	4 3 2 1	Spontaneous To Speech/Sound To Pain No Response
M O T O R	Moves Spontaneously Withdraws from Touch Withdraws from Pain Abnormal Flexion Abnormal Extension No Response	6 5 4 3 2 1	Obeys Commands Localizes Painful Stimuli Withdraws from Pain Abnormal Flexion Abnormal Extension No Response
V E R B A L	Coos and Babbles Irritable Cry Cries to Pain Moans to Pain No Response	5 4 3 2 1	Oriented Confused Inappropriate Words Incomprehensible No Response

PEDIATRIC TRAUMA TRIAGE CRITERIA

Component	+2	+1	-1
Weight	> 20 kg	10-20 kg	< 10 kg
Airway	Normal	oxygen adjunct: mask, cannula, oral or nasal airway	Assisted / Intubated bag-valve-mask / ETT Cricothyrotomy
Level of Consciousness	Awake	Altered or history of loss of consciousness	Coma Unresponsive
Circulation	Peripheral pulses good SBP > 90 mmHg	Brachial / Femoral pulses palpable SBP 90-50 mmHg	Weak or no peripheral pulses SBP < 50 mmHg
Fracture	None seen or suspected	Single closed fracture	Any open or multiple fractures
Cutaneous	No visible injury	Contusion, abrasion or laceration < 7cm, not through fascia	Tissue loss laceration > 7cm Penetrating injury

A child is considered to have incurred serious trauma if:
A color triage score of one black box or two gray boxes
A numerical triage score ≤ 9
Penetrating wounds to the head, neck, torso or extremities proximal to the elbow or knee
Two or more long bone fractures, pelvic fracture, or flail chest
Open or depressed skull fracture
Full thickness (3°) burns, partial thickness (2°) burns > 10% BSA or burns combined with trauma
Paralysis
Amputation proximal to the wrist or ankle

PATIENT STATUS DETERMINATION & TRANSPORT DECISIONS 1.1

STATUS I (CRITICAL)

Cardiac arrest.
Respiratory arrest.
Patient requires assisted ventilations and/or advanced airway management.
Potential surgical emergency, i.e. suspected internal hemorrhage.
Consider transporting patients classified as Status I trauma patients by air medical transport from the scene of an emergency to the closest Level I or Level II Trauma Center.
Transport to closest appropriate hospital.
Consider air medical transport and/or ALS or paramedic intercept.

STATUS II (UNSTABLE)

Patient unresponsive or responsive to painful stimuli only.
Severe and/or deteriorating respiratory condition.
Significant hypotension.
Transport to closest appropriate hospital.
Consider appropriate air medical utilization and/or ALS or paramedic intercept.

STATUS III (POTENTIALLY UNSTABLE)

Patient alert, vitals stable with simple uncomplicated injuries.
Most medical complaints.
Transport to closest appropriate hospital.

STATUS IV (STABLE- TRANSPORT FOR DIAGNOSTIC TESTS)

Patients being transported to undergo non-emergent diagnostic tests that will not be seen in the emergency department or evaluated by a physician in the emergency department.
Transport to designated hospital.

NOTES OF CLARIFICATION

- Should a patient deteriorate to Status I while en route to a hospital, the EMS unit may divert to the nearest hospital after consultation with medical control and notification of both the hospital of original destination and the new destination hospital.
- In cases where the patient's status is uncertain, consult with medical control and proceed as directed.
- Status IV patients should be transported to their previously arranged destination unless their condition deteriorates to status III, II, or I.
- The destination hospital is determined by the highest medical level providing patient care. It should not be determined by police or bystanders.
- Transfers from ground ambulance to air medical transport shall occur at the closest appropriate landing site, including hospital heliports, airports, or unimproved landing site deemed safe per pilot discretion. In cases where a hospital heliport is used strictly as the ground to air ambulance transfer point, no transfer of care to the hospital is implied or should be assumed by hospital personnel, unless specifically requested by the EMS providers.

AIR MEDICAL TRANSPORT 1.2

The purpose of these guidelines is to establish a clinical framework for prehospital personnel to make decisions regarding when to access air medical transport services. The following constitute the foundation for these guidelines.

EMS personnel may request air medical transport (AMT) when operational conditions exist and/or the indicated clinical conditions are present:

Patients with an uncontrolled airway or uncontrollable hemorrhage should be brought to the nearest hospital unless advanced life support (ALS) service (by ground or air) can intercept in a more timely fashion;

AMT is not indicated for patients in cardiac arrest secondary to blunt trauma.

Request AMT as soon as practicable after initial assessment. Consider placing AMT on standby based on dispatch information. Communication with local medical control should be established as soon as practical to advise that AMT is responding, however **THESE GUIDELINES HAVE BEEN ESTABLISHED SO THAT AIR MEDICAL TRANSPORT DOES NOT REQUIRE ON-LINE MEDICAL CONTROL APPROVAL.**

OPERATIONAL CONDITIONS

When a patient meets defined clinical criteria and scene time plus ground transport time to the closest Level I trauma hospital exceeds the ETA of air medical transport; or
Patient location, weather or road conditions preclude the use of standard ground ambulance; or
Multiple casualties / patients are present which will exceed the capabilities of local hospital and agencies.

CLINICAL CONDITIONS

Physiologic Criteria
Severe respiratory compromise with respiratory arrest or abnormal respiratory rate.
Circulatory insufficiency: sustained systolic blood pressure < 90 or other signs of shock.
Severe traumatic brain injury: AVPU scale P or U, GCS < 9, or motor component of GCS < 5.

Anatomic Criteria
Penetrating or severe blunt trauma to the chest or abdomen.

ADDITIONAL NOTES

AMT may be indicated in a wide range of conditions other than those listed above. In cases where the patient's status is uncertain, consult with medical control and proceed as directed.
If extrication plus ground transport time to local hospital is less than air transport arrival time to scene, consider initiating ground transportation and divert helicopter to local hospital.

The destination hospital is determined by the highest medical level providing patient care. It should not be determined by police or bystanders.

Transfers from ground ambulance to air ambulance shall occur at the closest appropriate landing site, including hospital heliports, airports, or unimproved landing site deemed safe per pilot discretion. In cases where a hospital heliport is used strictly as the ground to air ambulance transfer point, no transfer of care to the hospital is implied or should be assumed by hospital personnel, unless specifically requested by the EMS providers.

COMMUNICATIONS 1.3

EMTs transporting status I, II, or III patients (see Patient Status Determination - Protocol 1.1) should advise the receiving hospital, in a timely manner, of patients en route to that Emergency Department (except in cases of Mass Casualty Incident during which routine communications cease).

An EMT may establish contact with a medical control physician via VHF radio on one of the assigned medical frequencies, via telephone direct to each Emergency Department's recorded EMS line, or via telephone patch through the Resource Coordination Center. If a medical control physician is needed for consultation, request before giving patient information. It is recommended that all medical communications be recorded.

VHF Medical Frequencies:

Initiate call to the appropriate hospital and identify:
destination hospital
ambulance unit calling
status of patient

Telephone:

- To contact the destination hospital via telephone, use the direct-recorded line to the Emergency Department.
- Request medical control, if needed, for the name of patient, age, status and complaint, e.g., "requesting medical control for Harristweed Wilson, 78 years old, status II, chest pain".

Resource Coordination Center (RCC) Phone Patch:
Initiate call on MED-4 to the Resource Coordination Center. Example: "Rockingham R.C.C., this is East Hampton Ambulance calling on Med 4 with status 1 traffic..requesting a phone patch to Portsmouth Hospital ED."
Once the patch is established, maintain radio concise language.

Upon establishing voice communication with the destination hospital/medical control physician (if needed), present the following information in a concise and clear manner:

- Emergency response unit: paramedic/Intermediate/Basic with ETA.
- Patient's age, sex, and status level.
- Patient's chief complaint.
- Patient's present medical condition.
- Patient's vital signs, including level of consciousness.
- Patient's physical signs of illness or injury.
- Patient's electrocardiogram rhythm, if indicated.
- Patient's relevant medical history.
- Pre-hospital treatment rendered.

Give a list of medications and allergies only if requested by the destination hospital or if it is anticipated that a medication order would be given by medical control.

COMMUNICATIONS FAILURE 1.4

In case of a communications failure with medical control due to equipment (cell phone, landline, IHERN) malfunction or due to incident location, the following will apply:

EMS personnel may, within the limits of their certifications, perform necessary ALS procedures that, under normal circumstances, would require a direct physician order.

These procedures shall be the minimum necessary to prevent the loss of life or the critical deterioration of a patient's condition.

All procedures performed under this order and the conditions that created the communications failure need to be thoroughly documented.

Attempts must be made to establish contact with medical control as soon as possible.

ALLERGIC REACTION/ANAPHYLAXIS – ADULT 2.0

DEFINITION: Anaphylaxis is suspected exposure to an allergen AND one or more of the following:

- severe respiratory distress;
- airway compromise / impending airway compromise (wheezing, swelling of the lips / tongue, throat tightness);
- signs of shock (including systolic BP <90).

BASIC STANDING ORDERS

Routine Patient Care.
Caution needed when administering epinephrine to patients with history of CAD, HTN, etc.
If patient has signs / symptoms of an allergic reaction (hives, itch, anxiety) but is otherwise hemodynamically stable, contact medical control for further direction.
If trained to do so, administer Epi-Pen 0.3 mg IM for patient with signs / symptoms of anaphylaxis.
Do not delay transport, except for epinephrine administration.
Consider ALS intercept.

INTERMEDIATE STANDING ORDERS

Consider albuterol 2.5 mg in 3 ml of NS via nebulizer. May repeat x 3 prn every 5 minutes.
Establish IV of 0.9% NaCl (normal saline) at KVO. Consider 250-500cc bolus if patient hemodynamically unstable.
For anaphylaxis, administer epinephrine (1:1,000 strength) 0.3 mg (0.3 ml) SQ or IM. Consider repeating x 2 every 5 minutes if no improvement.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

For allergic reaction, consider diphenhydramine 25-50 mg PO, IM or IV.
Consider methylprednisolone 125 mg IV.
For anaphylaxis, consider epinephrine (1:10,000 strength) 0.1 mg (1 ml) increments IV every 2 minutes. Consider IV epinephrine infusion of 1- 4 micrograms/minute. Mix 1 mg of 1:1000 in 250ml of 0.9% NaCl (normal saline) at 15 - 60 microdrops/minute. (PUMP REQUIRED).

ALLERGIC REACTION/ANAPHYLAXIS – PEDIATRIC 2.0P

Anaphylaxis is determined by suspected exposure to an allergen AND one or more of the following:

- severe respiratory distress;
- airway compromise / impending airway compromise (wheezing, swelling of the lips / tongue) or
- signs of shock

BASIC/INTERMEDIATE STANDING ORDERS

Routine Patient Care.
If patient has signs / symptoms of an allergic reaction (hives, itch, anxiety) but is otherwise hemodynamically stable, then contact medical control for further direction.
For anaphylaxis, administer Epi-Pen Jr. 0.15 mg IM for patients greater than 10kg and fit on a pediatric length based resuscitation tape (Broselow tape).
Do not delay transport, except for epinephrine administration.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

Consider albuterol 2.5mg in 3 ml of normal saline via nebulizer. May repeat x 2 prn.
IV access, obtain blood sample and administer fluids to maintain hemodynamic status.
Consider epinephrine (1:1,000 strength) 0.01mg/kg (0.01 ml/kg) SQ / IM every 5 minutes to a maximum dose of 0.3mg (0.3 ml).
If hypotensive, infuse 0.9% NaCl (normal saline) 20ml/kg.
Consider diphenhydramine 1mg/kg IV/IM.
For anaphylaxis, consider epinephrine (1:10,000 strength) 0.01mg/kg (0.01ml/kg) IV.
Consider methylprednisolone 1mg/kg IV.

ASTHMA/COPD/RAD[1] – ADULT 2.1

BASIC STANDING ORDERS

Routine Patient Care.
Wear N95 mask if bioterrorism related event or highly infectious agent suspected.
Administer oxygen at the appropriate rate for the patient's condition and medical history.
Patients with COPD who are on home oxygen, increase their rate by 1-2 liters per minute.
Attempt to keep oxygen saturation above 90%; increase the rate with caution and observe for fatigue, decreased mentation, and respiratory failure.
If available, request ALS intercept/intervention ASAP.

- Assist patient with his/her own MDI, if appropriate; only MDIs containing beta adrenergic bronchodilators (e.g., albuterol, Ventolin, Proventil, Combivent) may be used: 2 puffs; repeat every 5 minutes as needed while transporting; contact medical control if delayed.

INTERMEDIATE STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Consider albuterol 2.5mg in 3 ml normal saline via nebulizer prn every 5 minutes x 4 total doses.
If available, request paramedic intercept/intervention.
For patients exhibiting signs/symptoms consistent with CHF, see Congestive Heart Failure (Pulmonary Edema Protocol 3.3.

PARAMEDIC STANDING ORDERS

If available, measure peak flow pre-/post-treatment.
Consider ipratropium 0.5mg with albuterol 2.5mg, mixed in 3ml normal saline, via nebulizer x 1.
Consider repeat albuterol 2.5mg, mixed in 3ml normal saline, via nebulizer every 5 minutes.
Consider levalbuterol 1.25 mg via nebulizer.
Consider methylprednisolone 125 mg IV.
For patients who do not respond to nebulizer treatments or for impending respiratory failure, consider:
Epinephrine **(1:1,000)** 0.3mg (0.3ml) SQ or IM.
Magnesium sulfate 2 grams in 100 ml 0.9% NaCl (normal saline) IV over 10 minutes.
For COPD patients, CPAP*, if available and trained to use; maximum 10 cmH_2O pressure support
Advanced Airway Management as indicated and trained to perform – see Protocol 5.0
For patients exhibiting signs/symptoms consistent with CHF, see Protocol 3.3.

([1]RAD = Reactive Airway Disease)

* Continuous Positive Airway Pressure (CPAP) has been demonstrated to be effective in preventing intubation and decreasing mortality in patients with acute respiratory failure in properly selected patients.

Indications: Respiratory distress in the conscious patient suffering from presumed pulmonary edema who is non-responsive to simple oxygenation via non-rebreather mask.

ASTHMA/RAD[1]– PEDIATRIC 2.1P

BASIC AND INTERMEDIATE STANDING ORDERS

ROUTINE PATIENT CARE.
Wear N95 mask if bioterrorism related event or highly infectious agent suspected.
If suspected epiglottitis, limit evaluation/interventions to only those absolutely necessary.
If available, request ALS intercept/intervention ASAP.
Assist patient with his/her own MDI, if appropriate; only MDIs containing beta adrenergic bronchodilators (e.g., albuterol, Ventolin, Proventil) may be used: 2 puffs; repeat every 5 minutes as needed while transporting; contact medical control if delayed.
For patients with croup, provide humidified oxygen.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

If croup suspected, consider nebulized epinephrine:
Less than 1 year of age: 2.5 mg (2.5 ml of 1:1000) in 3ml normal saline; may repeat in 15 minutes x 1.
Greater than 1 year of age: 5 mg (5 ml of 1:1000) in 3ml normal saline; may repeat in 15 minutes x 1.
IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Consider ipratropium 0.25mg (1.25ml of 0.02% solution) with albuterol 2.5mg (0.5ml of 0.5% solution), mixed in 3ml normal saline, via nebulizer x 1
Consider albuterol 2.5mg (0.5ml of 0.5% solution) in 3 ml normal saline solution via nebulizer every 5 minutes x 4 total doses.
Consider levalbuterol 0.63 mg via nebulizer.
Consider epinephrine **(1:1,000) 0.01**mg/kg (0.01ml/kg) SQ (maximum 0.3mg = 0.3ml) for patients unable to inhale nebulized albuterol.
Consider methylprednisolone 1 mg/kg IV for severe exacerbation
or patient who does not respond after first nebulizer treatment.

([1]RAD = Reactive Airway Disease)

BEHAVIORAL EMERGENCIES INCLUDING SUICIDE ATTEMPTS AND THREATS – ADULT & PEDIATRIC 2.2

Scene Safety

- Avoid the use of lights and sirens on approach.
- Secure the area and move bystanders away.
- Approach in teams of two, with one rescuer focusing on patient and other on scene control.
- Approach in a calm, supportive manner.
- Offer reassurance: Let them know you can help them/get them help
- Respect the dignity and privacy of the individual
- Keep distance from patient if rescuer's presence increases patient's agitation.
- Avoid caring for an agitated patient in room with only a single entrance/exit, if possible.
- Position yourself to allow easy egress for either yourself or the patient
- Never leave a rescuer alone with a potentially violent or dangerous patient!
- Do not leave an at risk or potentially dangerous patient unattended or unsupervised even briefly.
- Talk in a conversational tone, reflect back to them what they said (insures accuracy)
- Respond to hallucinations or delusions by talking about the patient's feelings rather than what he/she is saying (*"It sounds like you are really frightened that people are out to get you").*
- Give firm, clear directions; one person should talk to the patient
- Explain clearly what will happen next and allow patient choice when possible

Implement SAFER model:
Stabilize the situation by lowering stimuli including voice.
Assess and acknowledge the crisis by validating patient's feelings and not minimizing them
Facilitate the identification and activation of resources, (clergy, family, friends or police.)
Encourage patient to use resources and take actions in his or her best interest.
Recovery or referral- leave patient in care of responsible person or professional, or transport to appropriate medical facility. Do not leave patient alone when EMS clears the scene.

BASIC/INTERMEDIATE STANDING ORDERS:

Routine Patient Care.
Observe and record patient's behavior.
Determine if patient is under the care of mental health professional and record contact information
Assess for risk to self and others:

- Ask directly "*Are you thinking about killing yourself or someone else, hurting yourself or hurting others*?"
- If yes, ask directly *"Have you thought about how you will do this*?"
- If yes, find out if s/he has the means available, or is attempting to procure the means to carry out his/her thoughts. Ask directly, *"Do you have or know where you can get [gun, pills, rope, car, etc.]?"*
- If yes, *"Have you planned out where and when you will do it?"*
- If yes, "*Does anyone else know about your plans?*" (Teens and young adults sometimes engage in a suicide pact with another person. Getting this information, who the other person is and names and numbers for how s/he can be contacted, can be critical).

If patient is a risk for suicide or violence toward others:

- Transport to hospital for evaluation by mental health professional
- If patient refuses transport, contact law enforcement for assistance

If patient is not an immediate threat to self or others and refuses transport:

- Encourage patient to seek mental health treatment

- Provide patient with mental health center emergency services number (800-852-3388)
- Avoid leaving patient alone. Assist in contacting responsible family/friend.

Encourage family to remove all firearms or other lethal means from the home as availability in the home dramatically increases the chances that an individual will act.

Restrain *if necessary* and *only* for the patient's and crew's safety.
Use only soft restraints and monitor distal circulation.
Consider paramedic intercept.
Restraint Notes:
Use the minimum force necessary. Restraint is never for punitive reasons.
Frequent airway monitoring
Do not restrain *patient*:

- face down,
- with hands behind back,
- with both hands over the head to the top bar of stretcher (one hand is acceptable),
- with straps over lower thorax or upper abdomen,
- using a "sandwich" restraint with scoop or backboard.

PARAMEDIC STANDING ORDERS-ADULT

Consider:
Haloperidol 2 mg IV or 5 mg IM, may repeat every 5 minutes to a maximum dose of 10 mg and/or any one of the following:
Lorazepam 1 mg IV or 2 mg IM, may repeat once in 5 minutes or
Midazolam 2.5 mg IV may repeat once in 5 minutes or
Diazepam 2 mg IV or 5 mg IM, may repeat once in 5 minutes.

Flumazenil 0.2 mg IV over 30 seconds to reverse the iatrogenic effects of benzodiazepines.
Diphenhydramine 50 mg IV/IM for acute dystonic reaction to haloperidol.

DIABETIC EMERGENCIES – ADULT 2.3

DEFINITION: Hypoglycemia is glucose level < 80mg/dl with associated altered mental status.

BASIC STANDING ORDERS

Routine Patient Care.
Obtain glucose reading via glucometer.
If the patient can swallow and hypoglycemia is present, administer oral glucose preparation.
Consider ALS intercept.

INTERMEDIATE STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
If glucose level is <80mg/dl with signs and symptoms, administer dextrose (D50) 25 gm IV. Re-check glucose 5 minutes after administration of dextrose (D50). Repeat dextrose (D50) 25 gm IV if glucose level is less than 80mg/dL.
If available and indicated, consider assisting family in administration of patient's glucagon 1 mg IM.
In the presence of chronic alcoholism, alcohol intoxication, or malnourishment, administer thiamine 100 mg IV or IM.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

If unable to obtain IV access, administer glucagon 1mg IM or SQ.

DIABETIC EMERGENCIES – PEDIATRIC 2.3P

DEFINITION: Hypoglycemia is glucose level < 60mg/dl with associated altered mental status.

BASIC\INTERMEDIATE STANDING ORDERS

Routine Patient Care.
Obtain glucose reading via glucometer.
If the patient can swallow and hypoglycemia is present, administer oral glucose preparation.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Age < 30 Days: administer dextrose 0.25 gm/kg IVP .
Age > 30 Days and < 2 Years: administer dextrose (D25) 0.25 gm/kg (1ml/kg) IVP (dextrose diluted 1:1 for a 25% solution).
2 Years or more: administer dextrose (D50) 0.25 gm/kg (0.5ml/kg) IVP (maximum 25 gms).
If unable to obtain IV or IO access: administer glucagon 0.01 - 0.1mg/kg IM or SQ.

STROKE – ADULT & PEDIATRIC 2.4

BASIC STANDING ORDERS

Routine Patient Care.
Obtain glucose reading via glucometer.
Perform Prehospital Stroke Scale.
Determine time of onset of the symptoms.
Early notification of emergency department.
Elevate head of the stretcher 30 degrees.
Check blood pressure bilaterally.
Consider ALS intercept.
Minimize on scene time.

INTERMEDIATE \PARAMEDIC STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Consider underlying causes.
Consider paramedic intercept if advanced airway control is required.

Prehospital Stroke Scale:
Abnormal findings on any part of the exam may indicate an acute stroke.

FACIAL DROOP

Normal: Both sides of face move equally well.
Abnormal: One side of face does not move as well as other side.

ARM DRIFT

Normal: Both arms move the same or both arms don't move at all.
Abnormal: One arm doesn't move or one arm drifts down compared to the other.

SPEECH

Normal: Patient says correct words without slurring. (Ask patient to repeat a phrase such as, "You can't teach an old dog new tricks.")
Abnormal: Patient slurs words, says wrong words or is unable to speak.

Mental status changes in the heat-challenged victim signal the onset of potentially severe heat illness and heat stroke. Mortality and morbidity are directly related to the length of time the victim is subject to the heat stress. Consider pharmacological causes as well.

BASIC STANDING ORDERS

Routine Patient Care.
Move victim to a cool area and shield from the sun or any external heat source.
Remove as much clothing as is practical and loosen any restrictive garment remaining.
If alert and oriented give small sips of cool liquids.
Monitor and record vital signs and level of consciousness.
If temperature >104F(40C) or if altered mental status: begin active cooling by:
Continually mist the exposed skin with tepid water while fanning the victim
Truncal ice packs may be used, but are less effective than evaporation
Discontinue active cooling if shivering occurs and notify medical control

INTERMEDIATE STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
IV bolus of 250 ml 0.9% NaCl (normal saline). May repeat if systolic pressure <100 mm/hg

PARAMEDIC STANDING ORDERS - ADULT

If uncontrolled shivering occurs during cooling, lorazepam 0.5 – 1mg IV / IM or diazepam 2 mg IV or 5 mg IM.

PARAMEDIC STANDING ORDERS - PEDIATRIC

Bolus with 20 ml/ kg 0.9% NaCl (normal saline) to maintain hemodynamic status.

HYPOTHERMIA (ENVIRONMENTAL) – ADULT & PEDIATRIC 2.6

BASIC STANDING ORDERS

Routine Patient Care.
Avoid rough movement and excess activity.
Prevent further heat loss:
- Insulate from the ground and shield from wind/water.
- Move to a warm environment.
- Gently remove any wet clothing.
- Cover with warm blankets. Cover the head and neck.

Obtain temperature – (rectal temp preferred as appropriate).
Maintain horizontal position.
Truncal warm packs.
Consider covering the patient's mouth and nose with a surgical mask to prevent respiratory heat loss.
A minimum of 45 – 60 second assessment of respiration and pulse is necessary to confirm respiratory arrest or pulseless cardiac arrest.
Apply cardiac monitor / AED if available. If VF, up to 3 shocks may be delivered.
If unsuccessful perform CPR. CPR is performed with both the rate of chest compressions and the rate of ventilations at 1/2 to 1/3. Do not initiate compressions if any palpable pulse is present.
Consider ALS intercept.

INTERMEDIATE/PARAMEDIC STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.

If core temperature <30°C:
Continue CPR.
Withhold IV medications.
Limit defibrillation to a maximum of 3.

If core temperature >30°C:
Continue CPR.
Give IV medications based on dysrhythmia (but at longer intervals).
Repeat defibrillation for ventricular fibrillation/ventricular tachycardia as core temperature rises.

Severity Levels of Hypothermia and Associated Symptoms

MILD	97°F – 95°F (36.1°C – 35°C)	cold sensation, shivering, unable to perform complex tasks with hands
MODERATE	95°F – 93°F (35°C - 33.9°C)	intense shivering, clumsy and uncoordinated, mild confusion, slow and labored movements
	93°F –90°F (33.9°C – 32.2°C)	violent shivering, difficulty with speech, sluggish thinking, mild amnesia, may appear drunk
SEVERE	90°F –86°F (32.2°C - 30°C)	shivering stops, unable to walk, incoherent, irrational
	<86°F (30°C)	progressive stupor to unconsciousness, loss of awareness
	<82°F (27.8°C)	unconscious, respiration and heartbeat erratic, pulse not palpable, pulmonary edema, cardiac and respiratory arrest, death

OBSTETRICAL EMERGENCIES 2.7

BASIC STANDING ORDERS

Routine Patient Care.
Gather specific information:

- Length of pregnancy, previous pregnancies, last menstrual period, due date, pre-natal care, number of expected babies, drug use.
- Signs of near delivery: membrane rupture ("water broke") or bloody show, contractions, urge to move bowels, urge to push, etc.
- Signs of pre-eclampsia: hypertension, swelling of face and/or extremities.

Oxygen at high concentration to benefit mother and fetus.
Expose as necessary to assess for bleeding, crowning, prolapsed cord, etc.
Do not digitally examine or insert anything into vagina. Exceptions: to manage baby's airway in breech presentation or to treat prolapsed cord as below, may insert hand.
Contact medical control if:

- Active labor and delivery is imminent.
- Post-partum hemorrhage.
- Breech presentation
- Prolapsed cord.

Place mother in left-lateral recumbent position except as noted.
Prolapsed cord: knee-chest position or Trendelenberg position; immediately and continuously support infant head or body with your hand to permit blood flow through cord. Transport at once to closest hospital.
Consider ALS intercept

INTERMEDIATE STANDING ORDERS

For third-trimester bleeding, pre-eclampsia, placenta previa, breech presentation, post-partum hemorrhage: initiate IV - 0.9% NaCl (normal saline) @ KVO and consider fluid bolus of 250 ml for active bleeding.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

Fluid resuscitation to maintain appropriate hemodynamic status.
Treat active seizures.
Consider oxytocin 10 – 20 units in 1000ml 0.9% NaCl (normal saline) infused over 20 minutes for post-partum hemorrhage.

NEONATAL RESUSCITATION 2.8P

BASIC AND INTERMEDIATE STANDING ORDERS

Routine Patient Care.
Suction the mouth then nose with a bulb syringe immediately upon delivery of the head and before stimulation or initiation of artificial ventilation if meconium staining is present.
If APGAR is <6 at 1 minute, or meconium present, start resuscitation.
Leave at least 6 inches of newborn's umbilical cord when cutting the cord.
Note the 1-minute and 5-minute APGAR scores. Continue to assign scores every five minutes thereafter as long as the APGAR score is less than 7.
Rapidly warm and dry the neonate and provide tactile stimulation by flicking the soles of the feet and/or rubbing the back.
Chest compressions if heart rate is less than 60 bpm.
Wrap the infant in dry linens and cover head.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

If meconium is present in the oropharynx, visualize the cords.
If thick meconium is present at the cords, perform direct endotracheal suctioning.
Deep suction the oropharynx using an 8 - 10 FR. Catheter, limit to 5 seconds at a time
Ventilate between suctioning attempts with 100% oxygen with a neonatal bag-valve-mask at a rate of 40-60/minute.
Use only enough tidal volume to see the chest rise.
Continue to suction the nose and oropharynx periodically to remove secretions that emerge from the lungs.
If apnea, bradycardia, or central cyanosis is present, ventilate at 40-60 ventilations/minute using 100% oxygen with neonatal bag-valve-mask.
If, despite adequate assisted ventilation for 30 seconds, the heart rate is < 80 beats per minute and not increasing: continue assisted ventilation and begin chest compressions interposed with ventilation in a 3:1 ratio at a combined rate of 120/minute.
INTUBATE using a 3.0-4.0 ETT tube (2.5 for preemie) and a straight laryngoscope blade.
If the heart rate remains < 80/minute despite warming, stimulation, adequate ventilation with 100% oxygen:
Establish IV/UVC access - 0.9% NaCl (normal saline) @ KVO – Obtain blood sample.
Epinephrine (1:10,000) 0.01 mg/kg IV/ETT (0.1ml/mg)
ALS Notes:
Flush all meds with 5 ml 0.9% NaCl (normal saline)/Flush or dilute all ETT meds with 2 ml 0.9% NaCl (normal saline)

APGAR Scores

Sign	Score=0	Score=1	Score=2
Heart Rate	Absent	Below 100	Above 100
Respiratory Effort	Absent	Weak, irregular, or gasping	Good, crying
Muscle Tone	Flaccid	Some flexion of extremities	Well flexed, or active movements of extremities
Reflex Irritability	No response	Grimace or weak cry	Good cry
Color	Blue all over, or pale	Central cyanosis	Pink all over

PAIN MANAGEMENT – ADULT & PEDIATRIC 2.9

BASIC STANDING ORDERS

Routine Patient Care.
Place the patient in a position of comfort if possible.
Give reassurance, psychological support and distraction.
Use ample padding for long and short spinal immobilization devices.
Use ample padding when splinting possible fractures, dislocations, sprains and strains. Elevate injured extremities if possible. Consider application of cold pack for 30 minutes.
Have the patient rate their pain on a 0 to 10 (or similar) scale*. Reassess the patient's pain level and vital signs every 5 minutes.
Consider paramedic intercept if needed for pain management.

INTERMEDIATE STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.

PARAMEDIC ADULT STANDING ORDERS

Unless the patient has altered mental status, multi-systems trauma or abdominal pain, the paramedic may consider:
Ketorolac: 15 – 30 mg IVP or 30 – 60 mg IM (no repeat).
Consider as first line in renal colic. Avoid Ketorolac in patients with NSAID allergy, aspirin sensitive asthma or known peptic ulcer disease.
Morphine: 1-5 mg IV/IM every 10 minutes to a total of 15 mg titrated to pain and SBP > 90.
Fentanyl: 25-50 mcg slow IV every 5 minutes up to a total of 150 mcg.
Nitronox: (Patient must be able to self-administer this medication) (Contraindicated in abdominal pain, pneumothorax, head injured, or diving emergency patients).
Opiate-related hypoventilation, consider:
Naloxone: 0.4mg IV/IM, repeat prn.
Nausea: Refer to Nausea Protocol 2.13.

PARAMEDIC PEDIATRIC STANDING ORDERS

Fentanyl 0.5 mcg/kg IV every 5 minutes. May be repeated up to three doses, or
Morphine 0.1 mg/kg IV every 10 minutes. May be repeated up to two doses.

Contact medical control For guidance with all patients with altered mental status, multi-systems trauma or abdominal pain or for requests to provide additional doses of a medication.

*0-10 Scale: Avoid coaching the patient, simply ask them to rate their pain on a scale from 0-10, where 0 is no pain at all and 10 is the worst pain ever experienced by the patient. Wong-Baker "faces" scale: The faces correspond to numeric values from 0-10. The scale can be documented with the numeric value or the textual pain description.

FEVER (>101.5° F / 38.5° C) - ADULT 2.10

This protocol is NOT intended for patients suffering from environmental hyperthermia (protocol 2.5).

BASIC AND INTERMEDIATE STANDING ORDERS

Routine Patient Care.
Wear N95 mask if bioterrorism related event or highly infectious agent suspected.
Passive cooling; remove excessive clothing / bundling.
Do not cool to induce shivering.

PARAMEDIC STANDING ORDERS

For temperatures of 101.5°F (38.5°C) or greater and no acetaminophen in last 4 hours, consider administering acetaminophen 650mg PO in absence of signs/symptoms of nausea & vomiting.
If acetaminophen has been administered within last 4 hours and temperature is still > 101.5, then consider administering ibuprofen 600mg PO if no contraindications (e.g. age > 65, known GI intolerance, known ulcer) and is without signs/symptoms of nausea & vomiting.

FEVER (>101.5° F / 38.5° C) - PEDIATRIC 2.10P

This protocol is NOT intended for patients suffering from environmental hyperthermia (Protocol 2.5).

BASIC AND INTERMEDIATE STANDING ORDERS

Routine Patient Care.
Wear N95 mask if bioterrorism related event or highly infectious agent suspected.
Obtain temperature – (rectal temperature preferred as appropriate).
Passive cooling; remove excessive clothing / bundling.
Do not cool to induce shivering.

PARAMEDIC STANDING ORDERS

For temperatures of 101.5°F (38.5°C) or greater:

If child has had acetaminophen more than 4 hours ago, then consider administer of acetaminophen 15 mg/kg PO/PR.
If last dose of acetaminophen was given less than 4 hours ago, but was less than 15 mg/kg, then consider administrating a "make-up" dose to bring total dose up to 15 mg/kg.
If child has had maximal dose of acetaminophen less than 4 hours ago and still has temperature greater than 101.5°F (38.5°C), then consider ibuprofen 10 mg/kg PO (contraindicated in children under 6 months of age).
If child has had ibuprofen within the last 6 hours and dose was less than 10 mg/kg, then administer "make-up" dose to bring total dose up to 10 mg/kg (contraindicated in children under 6 months of age).

POISONING/SUBSTANCE ABUSE/OVERDOSE - ADULT 2.11

BASIC STANDING ORDERS

Remove patient from additional exposure.
Routine Patient Care.
Absorbed poison:
Remove clothing and fully decontaminate.
If eye is involved, irrigate at least 20 minutes without delaying transport.
Inhaled/injected poison:
Administer high-flow oxygen.
NOTE: Pulse oximetry may not be accurate for toxic inhalation patients.
Ingested poison:
Contact Poison Control at (800) 222-1222 as soon as practicable.
Consider activated charcoal (with sorbitol) 25 - 50 gm PO.
Bring container to receiving hospital.
Envenomations:
Immobilize extremity in dependent position. Consider ice pack for bee stings.
Consider ALS intercept/Air Medical Transport.

INTERMEDIATE STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Administer amyl nitrite and sodium thiosulfate for cyanide poisoning if available (See Cyanide & Arsenic Protocol 8.4).
Administer Mark-1 kits for symptomatic organophosphates exposure (See Nerve Agent & Organophosphates Protocol 8.2).
Suggested Narcotic Antidotes: Naloxone 0.4–2 mg IV push, IM, SQ, IN or ETT. If no response, may repeat initial dose every 5 minutes to a total of 10 mgs.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

Suggested Antidotes

Tricyclic:	Sodium bicarbonate 1 mEq/kg IV.
Beta Blocker:	Glucagon 2 – 5 mg IV, IM, SQ.
Ca Channel Blocker:	Calcium Chloride 1-2 g IV bolus followed by 20-40 mg/kg/hr infusion. Glucagon 2– 5 mg IV, IM, SQ.
Hydrogen Cyanide:	Sodium Nitrite 300 mg IV over 5 minutes or more (10 ml of 3% solution). Repeat half dose if symptoms persist after 5-10 minutes. Sodium Thiosulfate: 12.5 g IV over 10 minutes (50 ml of 25% solution). Repeat half dose if symptoms persist after 5-10 minutes.
Organophosphates:	Atropine: 2 mg IV every 5 minutes as needed and Pralidoxime: 1-2 gram IV over 30–60 minutes.

POISONING/SUBSTANCE ABUSE/OVERDOSE - PEDIATRIC 2.11P

BASIC STANDING ORDERS

Remove patient from additional exposure.
Routine Patient Care.
Absorbed poison:
Remove clothing and fully decontaminate.
If eye is involved, irrigate at least 20 minutes without delaying transport.
Inhaled/injected poison:
Administer high-flow oxygen.
NOTE: Pulse oximetry may not be accurate for toxic inhalation patients.
Ingested poison:
Contact Poison Control at (800) 222-1222 as soon as practicable.
Consider activated charcoal (with sorbitol) 25 - 50 gm PO.
Bring container to receiving hospital.
Envenomations:
Immobilize extremity in dependent position. Consider ice pack for bee stings.
Consider ALS intercept/Air Medical Transport.

INTERMEDIATE STANDING ORDERS

Administer amyl nitrite and sodium thiosulfate for cyanide poisoning if available (See Cyanide & Arsenic Protocol 8.4P).
Administer Mark-1 kits for symptomatic organophosphates exposure (See Nerve Agent & Organophosphates Protocol 8.2P).

PARAMEDIC STANDING ORDERS

Antidotes

Narcotic:	Nalaxone 0.01 mg/kg IV.
Tricyclic:	Sodium bicarbonate 1 mEq/kg IV.
Beta Blocker:	Glucagon 0.025-0.05mg/kg IV.
Ca Channel Blocker:	Calcium Chloride 20 mg/kg/dose IV over 5 minutes, repeat if necessary. Glucagon 0.025-0.05mg/kg IV.
Hydrogen Cyanide:	Sodium Nitrite 0.2-0.4 ml/kg of a 3 percent solution IV. Repeat half dose if symptoms persist after 5-10 minutes. Sodium Thiosulfate: 1.65 ml/kg IV of a 25 percent solution. Repeat half dose if symptoms persist after 5-10 minutes.
Organophosphates:	Atropine 0.05 - 0.1 mg/kg IVor IM (minimum dose of 0.1 mg, maximum dose 5 mg), repeat 2-5 minutes as needed. Pralidoxime 25 - 50 mg/kg/dose IV for maximum dose 1 g or IM for maximum dose of 2 g, repeat within 30-60 minutes as needed, and every hour for 1–2 doses as needed.

SEIZURES – ADULT 2.12

BASIC STANDING ORDERS

Routine Patient Care.
Do not attempt to restrain the patient; protect the patient from injury.
History preceding seizure is very important. Find out what precipitated seizure (e.g. medication non-compliance, active infection, trauma, hypoglycemia, substance abuse, third-trimester pregnancy, etc.).
Request ALS intercept for ongoing or recurrent seizure activity.

INTERMEDIATE STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
If blood glucose reading less than 80 mg/dl, see to Diabetic Emergencies Protocol 2.3.
Request paramedic intercept for ongoing or recurrent seizure activity.

PARAMEDIC STANDING ORDERS

Saline lock or IV - 0.9% NaCl (normal saline) @ rate to maintain appropriate hemodynamic status.
If generalized seizure activity is present, consider:
Lorazepam 1-2 mg IV or IM repeated every 5 minutes to a total of 8 mg, or
Diazepam 5 mg IV (then 2.5 mg IV every 5 minutes to total of 10 mg), or
Midazolam 1 – 2.5 mg IV/IM/IN repeated every 5 minutes or until seizure activity is abolished.

In presence of third-trimester pregnancy, consider magnesium sulfate 4 grams slow IVP over 5 minutes.

SEIZURES – PEDIATRIC 2.12P

BASIC AND INTERMEDIATE STANDING ORDERS

Routine Patient Care.
Do not attempt to restrain the patient; protect the patient from injury.
History preceding seizure very important. Find out what precipitated seizure (e.g. medication non-compliance, active infection, trauma, substance abuse, fever, etc.).
Obtain patient's temperature (rectal route preferred as appropriate).
Request paramedic intercept for ongoing or recurrent seizure activity.

PARAMEDIC STANDING ORDER

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
If blood glucose reading less than 60 mg/dl, see Pediatric Diabetic Emergencies Protocol 2.3P.

If generalized seizure activity is present, consider:
lorazepam 0.1 mg/kg IV or IM (max total dose = 2 mg) or
midazolam 0.1 mg/kg IV, IN or IM or
diazepam 0.1 mg/kg IV or 0.5 mg/kg PR.

Any of the above may be repeated in 5 minutes,once.

NAUSEA/VOMITING – ADULT & PEDIATRIC 2.13

BASIC STANDING ORDERS

Routine Patient Care.

INTERMEDIATE STANDING ORDERS - ADULT

Consider IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.

PARAMEDIC STANDING ORDERS - ADULT

Prochlorperazine 2.5mg IV or 5mg IM, or
Promethazine 6.25mg IV or 12.5mg IM, or
Ondansetron 4mg IV or IM,or
Metoclopramide 0.1mg/kg IV / IM to max of 5 mg. Or
May repeat any of the medications once after 10 minutes if nausea persists.
Granisetron HCL 0.1mg - 1 mg IV One time dose.
Dolasetron 12.5 mg IV One time dose.

Consider 50mg of diphenhydramine IV / IM for dystonic reaction.

PARAMEDICSTANDING ORDERS- PEDIATRIC

IV access, obtain blood sample and administer fluids to maintain hemodynamic status.
For Patients greater then 2 years of age:
Promethazine 0.25mg/kg IV/IM.

FDA: CAUTION SHOULD BE EXERCISED WHEN ADMINISTERING PHENERGAN TO PEDIATRIC PATIENTS 2 YEARS OF AGE AND YOUNGER. IT IS RECOMMENDED THAT THE LOWEST EFFECTIVE DOSE OF PHENERGAN BE USED IN PEDIATRIC PATIENTS 2 YEARS OF AGE OR OLDER.

Consider 0.5 mg/kg of diphenhydramine IV / IM for dystonic reaction.

BRADYCARDIA (SYMPTOMATIC) - ADULT 3.0

BASIC STANDING ORDERS

Routine Patient Care.
Consider ALS intercept.

INTERMEDIATE STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

If available, perform 12-lead EKG.
Consider atropine 0.5 mg IVP (1 mg via ETT) every 3-5 minutes to total of 0.04mg/kg.
Consider transcutaneous pacing if available. Attempt capture at 80 bpm at minimum output and increase until capture achieved.
Consider procedural anxiolysis and/or analgesia (see Pain Management Protocol 2.9 and/or Behavioral Emergencies Protocol 2.2).
Consider dopamine infusion 5-20mcg/kg/minute for pressure support.
Consider glucagon 2-5 mg IV, IM SQ over 2-5 minutes in adults for suspected beta blocker or calcium channel blocker overdose.

BRADYCARDIA (SYMPTOMATIC) - PEDIATRIC 3.0P

Heart Rate Criteria:

Age	HR (bpm)	SBP (mmHg)
newborn	<90	<50
6mo-3yrs	<80	<70
4-8yrs	<70	<80
8-12yrs	<60	<85

BASIC/INTERMEDIATE STANDING ORDERS

Routine Patient Care.
Consider underlying causes of bradycardia (e.g. hypoxia).
Provide high-flow oxygen and consider assisting ventilations.
Begin/continue CPR in child if HR < 60bpm and hypoperfusion.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Epinephrine 0.01 mg/kg IV (0.1 ml/kg of **1:10,000**) IV every 3-5 minutes, or
Epinephrine 0.1 mg/kg ETT (0.1 ml/kg of **1:1000**) every 3-5 minutes.
Consider atropine 0.02mg/kg IV (min single dose 0.1mg, - total max dose 0.04mg/kg).
Consider transcutaneous pacing at minimum output and increase until capture achieved for rate appropriate to age.
Consider procedural sedation prior to pacing:
midazolam 0.05 mg/kg IV, or
diazepam 0.05 mg/kg IV
Consider glucose if hypoglycemia suspected.

TACHYCARDIA - ADULT 3.1

BASIC STANDING ORDERS

Routine Patient Care.
Consider ALS intercept.

INTERMEDIATE ADULT STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Consider paramedic intercept.

PARAMEDIC ADULT STANDING ORDERS

12 Lead ECG if available and practical.
For heart rate greater than 150 bpm: Consider vagal maneuvers.

If symptomatic and hemodynamically unstable:
Consider procedural sedation if practicable:
midazolam 2.5 mg IV or diazepam 5 mg IV
Synchronized cardioversion:
For **V-Tach, A-fib, PSVT**: 100J, 200J, 300J, 360J*
For **A-flutter**: 50J, 100J, 200J, 300J, 360J*
For **Polymorphic V-Tach**: 200J, 300J, 360J*
*or biphasic equivalents

If symptomatic, but hemodynamically stable:
For atrial fib, atrial flutter, consider:
diltiazem 0.25mg/kg IV over 2 minutes. Note contraindication: WPW
Repeat dose at 15 minutes if necessary at 0.35mg/kg.
For WPW, consider:
amiodarone 150mg IV over 10 minutes, or
procainamide 20mg/minute IV up to 17 mg/kg.

For PSVT or narrow complex tachycardia, consider:
Adenosine 6 mg rapid IVP, repeat dose of 12 mg X 2.
Then, if patient exhibits signs and symptoms of CHF or has known ejection fraction less than 40%, consider:
amiodarone 150 mg IV
Otherwise consider:
diltiazem 0.25mg/kg IV over 2 minutes or
verapamil 2.5mg-5mg IV

For uncertain wide complex tachycardia, consider:
amiodarone 150mg IV over 10 minutes or,
if cardiac function not impaired:
procainamide 20 mg/minute up to 17 mg/kg.

For VT, consider:
lidocaine 1 – 1.5 mg/kg followed by repeat bolus of 0.5 – 0.75 mg/kg IV or
amiodarone 150mg IV over 10 minutes or
procainamide 20 mg/minute,

If polymorphic / torsades, consider:
magnesium sulfate 2-4g IV over 5 minutes
overdrive pacing

TACHYCARDIA - PEDIATRIC 3.1P

BASIC & INTERMEDIATE STANDING ORDERS

Routine Patient Care.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

12-lead ECG if available and practical.
IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Vagal maneuvers.
Consider treatable causes.

Consider procedural sedation prior to cardioversion:
midazolam 0.05 mg/kg IV or
diazepam 0.05 mg/kg IV.

For suspected VT, consider:
Amiodarone 5 mg/kg IV over 20 to 60 minutes, or
Procainamide 15mg/kg IV over 30 to 60 minutes, or
Lidocaine 1mg/kg IV bolus.
If unstable, synchronized cardioversion 0.5 to 1 J/kg.

For PSVT or narrow complex tachycardia, consider:
Adenosine 0.1mg/kg IV not to exceed 6 mg (first dose).
May repeat once at 0.2mg/kg IV not to exceed 12mg (subsequent dose).
If unstable, synchronized cardioversion 0.5 to 1 J/kg.

ACUTE CORONARY SYNDROMES - ADULT 3.2

BASIC STANDING ORDERS

Routine Patient Care.
Aspirin 324 mg PO (chewable). If patient states they cannot take ASA due to "stomach problems" or "doctor's orders", call medical control for guidance.
Facilitate administration of patient's own nitroglycerin if SBP > 90, every 5 minutes up to 3.
If possible, obtain a 12-lead EKG and transmit it to the ED.
Minimize on scene time.

INTERMEDIATE STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Complete fibrinolytic questionnaire.
Consider paramedic intercept.

PARAMEDIC ADULT STANDING ORDERS

Nitroglycerin, 0.4mg SL every 5 minutes while symptoms persist.
Consider IV nitroglycerin at 10mcg/minute if symptoms persist after 3rd SL nitroglycerin. (There must be either 2 IV lines or a TwinCath in place and the IV nitroglycerin must be on an infusion pump).
Increase IV nitroglycerin by 10mcg/minute every 5 minutes while symptoms persist & SBP > 90.
If IV nitroglycerin is not available, then nitroglycerin paste 1 -2 inches transdermal.
Consider morphine, 2mg IVP every 5 minutes up to 10mg if pain persists & SBP > 90.
Consider fentanyl 25-50 mcg for patients with a morphine allergy or known right ventricular infarct.
Consider metoprolol: 5mg (5ml) IVP over 2-5 minutes. Repeat the dose every 5 minutes x 2 for a total of 15mg as long at the patient's SBP > 100 and HR > 60.
Treat dysrhythmias PRN; refer to appropriate protocol.

CONGESTIVE HEART FAILURE (PULMONARY EDEMA) - ADULT 3.3

BASIC STANDING ORDERS

Routine Patient Care.
Place patient in semi-sitting or full sitting position.
Administer oxygen at a rate to keep oxygen saturation above 90%.
Facilitate administration of patient's own nitroglycerin - maintain SBP > 90.
Consider ALS intercept.

INTERMEDIATE STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

Consider nitroglycerin 0.4 mg (1/150) every 5 minutes x 3.
Consider furosemide 0.5 mg – 1 mg/kg IV or bumetanide 1 mg IV.
Consider morphine sulfate 1 mg – 5 mg slow IV x 1.
If not improving with above measures and systolic BP remains above 90 mm Hg, consider
IV nitroglycerin infusion beginning at 10 mcg/minute, via infusion pump titrated to effect and SBP greater than 90 mm Hg. or nitroglycerin paste 1" – 2" transdermally.
Consider CPAP* if available and trained to use.

* Continuous Positive Airway Pressure (CPAP) with maximum 10 cmH_2O pressure support, has been demonstrate to be effective in preventing intubation and decreasing mortality in patients with acute respiratory failure in properly selected patients. **Indications:** Respiratory distress in the conscious patient suffering from presumed pulmonary edema who are non-responsive to simple oxygenation via non-rebreather mask.

CARDIAC ARREST - ADULT 3.4

BASIC STANDING ORDERS

Routine Patient Care.
Apply AED according to the manufacturer's instructions and follow prompts. If AED is available on scene, responders may use it or continue to use it.
OR
Apply semi-automatic AED and follow prompts, analyzing and shocking when advised in stacks of up to three shocks with CPR between defibrillation attempts.

For TRAUMA:
- Minimize time on scene
- OR
- Consider termination of efforts or not attempting resuscitation (see DNR Orders Protocol 6.4 and/or Special Resuscitation Situations and Exceptions Protocol 6.5).

Consider ALS intercept

INTERMEDIATE STANDING ORDERS

Document presenting cardiac rhythm in two leads if possible.
Manual Defibrillation if trained to do so. (200J, 300J, 360J or the equivalent for biphasic defibrillators.)
Airway management as appropriate and trained.
Consider treatable causes: overdose, poisoning, hypothermia. Treat as per specific protocols
IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.

For VF / Pulseless VT:
- Epinephrine 1 mg IV or 2 mg ETT repeat every 3-5 minutes (if trained).

For ASYSTOLE:
- Epinephrine 1 mg IV or 2 mg ETT repeat every 3-5 minutes (if trained).
- Atropine 1 mg IV or 2 mg ETT may repeat every 3-5 minutes to total of 3mg (0.04mg/kg) (if trained).
- Consider termination of efforts (see Special Resuscitation Situations and Exceptions Protocol 6.5).

For PEA :
- Bolus IV 0.9% NaCl (normal saline) 250 – 500 ml.
- Consider causes: Hypothermia, tension pneumothorax, cardiac tamponde
- Epinephrine 1 mg IV or 2 mg ETT repeat every 3-5 minutes (if trained).
- If Bradycardiac: Atropine 1 mg IV or 2 mg ETT may repeat every 3-5 minutes to total of 3mg (0.04mg/kg) (if trained).
- Continue therapy as indicated by rhythm.

For TRAUMA:
- Do not delay transport for IV, advanced airway, or drugs.
- IV 1 or 2 large bore lines en route, wide open.

Consider paramedic intercept

PARAMEDIC STANDING ORDERS

Consider treatable causes: overdose, poisoning, hypothermia. Treat as per specific protocols

Defibrillate as indicated.
Advanced airway management.
Consider intraosseous access for medication administration.

For ASYSTOLE:

Immediate Transcutaneous Pacing if available. 80 bpm at max output and decreased after capture achieved.

For VF / Pulseless VT:

Consider vasopressin 40 units IV, as substitute for initial epinephrine dose. May repeat once after 20 minutes.

Lidocaine 1 – 1.5mg/kg IV. Repeat dose every 5 minutes for refractory VF: 0.5 – 0.75 mg/kg IV to max total of 3 mg/kg, or

Amiodarone 300 mg IV second dose for recurrent or refractory VF/VT: 150 mg IV, or

For recurrent VF/VT:

Procainaminde 50 mg/minute to a total of 17 mg/kg, or

for torsades or suspected hypomagnesemia: magnesium sulfate 1 – 2 g IV over 1-2 minutes.

For excessive down-time, suspected or known hyperkalemia (e.g. cardiac arrest of a dialysis patient), or known tricyclic antidepressant overdose: sodium bicarbonate 1 mEq/kg IV.

For TRAUMA:

Bolus IV 0.9% NaCl (normal saline) 250 - 500 ml, may repeat as needed.

Consider bilateral needle chest decompression.

Consider termination of efforts (see Special Resuscitation Situations and Exceptions Protocol 6.5).

Post-Resuscitation Care:

Patient resuscitated from VF/VT with antiarrythmic, consider maintenance drip of same drug:

Lidocaine 1 – 4 mg/minute.

Procainamide 1- 4 mg/minute.

Amiodarone 1 mg/minute.

Patient resuscitated from VF/VT if no antiarrhythmics given:

Assure adequate oxygenation and ventilation, then consider:

Lidocaine 1 - 1.5 mg/kg followed by infusion of 1 – 4 mg/minute.

For post-resuscitation hypotension with normal heart rate:

Fluid bolus 250 - 500 ml, and/or consider

Dopamine infusion 5 – 20 mcg/kg/minute, or

Norepinephrine infusion 1 - 30 mcg/minute, or

Phenylephrine 40 - 180 mcg/minute infusion

For post-resuscitation tachycardia or bradycardia with persistent hypotension:

Recheck oxygenation and ventilation.

Treat as per specific protocol.

Repeat 12-lead ECG if available and practical.

CARDIAC ARREST - PEDIATRIC 3.4P

BASIC/INTERMEDIATE STANDING ORDERS

Routine Patient Care.
Do not delay defibrillation.
If age appropriate AED is available on scene, responders may use it or continue to use it.
Apply AED with age-appropriate pads according to manufacturer's instructions and follow prompts
OR
Apply semi-automatic AED with age-appropriate pads and follow prompts, analyzing and shocking when advised in stacks of up to three shocks with CPR between defibrillation attempts.
Document presenting cardiac rhythm in two leads if possible.
Consider treatable causes: overdose, poisoning, hypothermia. Treat as per specific protocols.
Consider termination of efforts or not attempting resuscitation (see Special Resuscitation Situations and Exceptions Protocol 6.5).
Consider ALS intercept.

PARAMEDIC PEDIATRIC STANDING ORDERS

Consider treatable causes: overdose, poisoning, hypothermia. Treat as per specific protocols

Defibrillate as indicated. (2J/kg repeat at 4J/kg)
Consider intraosseous access route for drugs.

For ASYSTOLE or PEA:
Epinephrine IV 0.01 mg/kg of 1:10,000 (0.1ml/kg) or ETT 0.1mg/kg of 1:1000 (0.1ml/kg) (if trained).
Repeat doses 0.1 mg/kg of 1:1000 IV or ETT every 3-5 minutes.

For TRAUMA:
Do not delay transport for IV, advanced airway, or drugs.
IV 1 or 2 large bore lines en route, bolus 0.9% NaCl (normal saline) 20 ml/kg.
Consider bilateral needle chest decompression.

For VF / Pulseless VT:
Epinephrine IV 0.01 mg/kg of 1:10,000 (0.1ml/gk) or ETT 0.1mg of 1:1000 (0.1ml/kg) (if trained).
Repeat doses 0.1 mg/kg of 1:1000 IV or ETT every 3-5 minutes.
Amiodarone 5mg/kg IV or
Lidocaine 1 mg/kg IV/ETT, or
for torsades or suspected hypomagnesemia: magnesium sulfate 25-50mg/kg (to a max total of 2g) IV over 1-2 minutes.

For excessive down-time, suspected or known hyperkalemia (e.g. cardiac arrest of a dialysis patient), or known tricyclic antidepressant overdose: Sodium Bicarbonate 1 mEq/kg IV .

Post-Resuscitation Care:

Patient resuscitated from VF/VT with antiarrythmic, consider maintenance drip of same drug:
Lidocaine 20-50 mcg/kg/minute, or
Amiodarone 10 mcg/kg/minute.

Patient resuscitated from VF/VT, no antiarrhythmics given:

Assure adequate oxygenation and ventilation, then consider:
Lidocaine: 1 mg/kg followed by infusion of 20-50 mcg/kg/minute.

For post-resuscitation hypotension with normal heart rate:

Fluid bolus 20 ml/kg and/or consider.
Dopamine infusion 5 – 20 mcg/kg/minute, or
Norepinephrine infusion 0.1 mcg/kg/minute titrated to desired effect. Max 1 – 2 mcg/kg/minute.

For post-resuscitation tachycardia or bradycardia with persistent hypotension:

Recheck oxygenation and ventilation, and treat as per specific protocol.

Repeat 12-lead ECG if available and practical.

ABDOMINAL INJURIES (PENETRATING) - ADULT 4.0

BASIC STANDING ORDERS

Routine Patient Care.
Cover open wounds with occlusive dressings.
Stabilize all impaled objects as found; do not remove them.
Cover evisceration-type wounds with moist sterile dressings.
Do not attempt to place organs back into the body.
With hemodynamic compromise and signs of shock place patient in Trendelenberg position.
Consider ALS intercept.
Consider air medical transport / trauma center if indicated and appropriate.

INTERMEDIATE / PARAMEDIC STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Do not delay transport for IV access.
With hemodynamic compromise and signs of shock:
250 ml fluid bolus.
Establish second IV 0.9% NaCl (normal saline) @ KVO.

ABDOMINAL INJURIES (PENETRATING) – PEDIATRIC 4.0P

BASIC AND INTERMEDIATE STANDING ORDERS

Routine Patient Care.
Consider ALS intercept when indicated and appropriate.
Cover open wounds with occlusive dressings.
Stabilize impaled objects as found; do not remove them.
Cover evisceration type wounds with moist sterile dressings.
Do not attempt to place organs back into the body.
With hemodynamic compromise and signs of shock place patient in Trendelenberg position.
Consider ALS intercept.
Consider air medical transport / trauma center if indicated and appropriate.

PARAMEDIC STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
With hemodynamic compromise, establish second IV 0.9% NaCl (normal saline) KVO.

DROWNING/SUBMERSION INJURIES – ADULT & PEDIATRIC 4.1

BASIC STANDING ORDERS

Routine Patient Care.
Assume c-spine injury and stabilize c-spine.
Obtain specific history: time, temperature, associated trauma, etc.
Begin resuscitation efforts while removing the patient from the water.
Consider hypothermia.
Conscious patients with submersion injuries should be transported to the hospital.
Consider termination of efforts (see Special Resuscitation Situations and Exceptions Protocol 6.5).
Consider ALS intercept.

INTERMEDIATE STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

Consider CPAP to supplement patient's own respiratory effort.

EYE

BASIC STANDING ORDERS

Routine Patient Care.
Obtain visual history (use of corrective lenses, surgeries, use of protective equipment).
Obtain visual acuity, if able.
Chemical irritants: flush with copious amounts of water, or normal saline.
Thermal burns to eyelids: patch both eyes with cool saline compress.
Impaled object: immobilize object and patch both eyes.
Puncture wound: place protective device over both eyes (e.g. eye shield). Do not apply pressure.
Foreign body: patch both eyes.
In the event patient is unable to close eyelids, keep eye moist with sterile saline compress.
Consider ALS intercept.

INTERMEDIATE STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

Proparacaine 2 drops to affected eye, repeat every 5 minutes as needed. Consider use of Morgan lens for irrigation.
Refer to the Pain Management Protocol 2.9.
Refer to the Nausea Protocol 2.13.

DENTAL AVULSIONS

BASIC/INTERMEDIATE/PARAMEDIC STANDING ORDERS

Routine Patient Care.
Dental avulsions should be placed in an obviously labeled container with saline or cell-culture medium.

BURNS (THERMAL) – ADULT 4.3

BASIC STANDING ORDERS

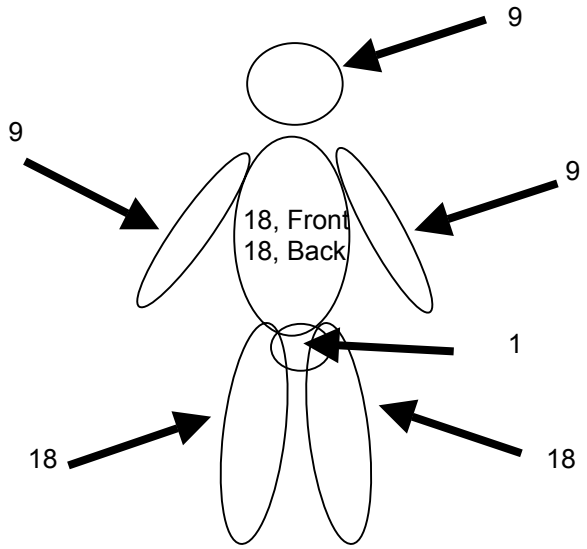
Routine Patient Care.
Stop burning process. Remove jewelry.
Decontaminate patient as appropriate.
Assess patient's airway for evidence of smoke inhalation or burns: soot around mouth or nostrils, singed hair, carbonaceous sputum. Maintain patent airway.
Determine extent of the burn using Rule of Nines. Determine depth of injury.
If the partial thickness burn (2°) is less than 10% body surface area, apply cool water or cool, wet towels for a maximum of 15 minutes to burned area. Prolonged cooling may result in hypothermia. Maintain body heat.
Cover burns with dry, sterile sheets or dry, sterile dressings.
Do not apply any ointments, creams or gels to burn area.
Consider ALS intercept.
Consider air medical transportation directly to a burn center.

INTERMEDIATE STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
If partial thickness (2°) or full thickness (3°) degree burn >10% body surface area consider: 250 ml fluid bolus.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

If respiratory difficulty, burns about the mouth or neck, or carbonaceous sputum production, consider advanced airway management. See Advanced Airway Management Protocol 5.0.
Consider IV 0.9% NaCl (normal saline) at rate to maintain hemodynamic status.
Refer to Pain Management Protocol 2.9.

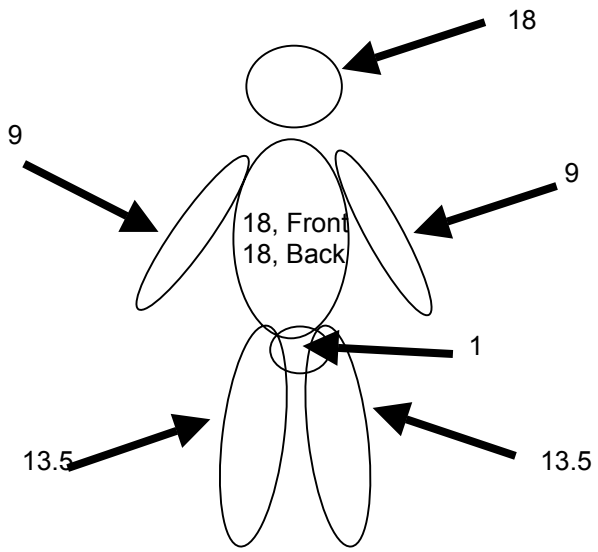


BASIC AND INTERMEDIATE STANDING ORDERS

Routine Patient Care.
Stop burning process. Remove jewelry.
Decontaminate patient as appropriate.
Assess patient's airway for evidence of smoke inhalation or burns: soot around mouth or nostrils, singed hair, carbonaceous sputum. Maintain patent airway.
Determine percent extent of the burn using Rule of Nines, and determine the depth of the burn. *Remember to use the Pediatric Rule of Nines.*
If the partial thickness (2°) burn is less than 10% body surface area, apply cool water or cool, wet towels for a maximum of 15 minutes to burned area. Prolonged cooling may result in hypothermia. Children are more susceptible to heat loss; maintain body heat.
Cover burns with dry, sterile sheets or dry, sterile dressings.
Do not apply any ointments, creams or gels to burn area.
Consider requesting ALS/paramedic intercept.
Consider air medical transportation directly to a burn center.

PARAMEDIC STANDING ORDERS

If respiratory difficulty, burns about the mouth or neck, or carbonaceous sputum production, consider advanced airway management. See Advanced Airway Management Protocol 5.0.
Consider IV 0.9% NaCl (normal saline) at rate to maintain hemodynamic status.
Refer to Pain Management Protocol 2.9.



NOTE: For each year over 1 year of age, subtract 1% from head, add equally to legs.

TRAUMATIC BRAIN INJURY – ADULT & PEDIATRIC 4.4

BASIC STANDING ORDERS

Routine Patient Care.
If breathing is inadequate, ventilate with 100% oxygen utilizing normal ventilation parameters.
Avoid hyperventilation unless clear signs of cerebral herniation are present.
Continuously monitor SBP.
Assess and document pupillary response and Glasgow Coma Scale every 5 minutes.
If SBP >110 mmHg, elevate head of backboard 15 – 30 degrees.
Consider ALS intercept/air medical transport.

INTERMEDIATE STANDING ORDERS

If signs of cerebral herniation are present, such as:
SPO2 < 90%, GCS < 9, non-reactive, dilated, or asymmetrical pupils, or
persistent seizures without lucid period, assist ventilations at the following rates:
Adult: 20 bpm
Child: 30 bpm
Infant: 35 bpm
Discontinue hyperventilation when signs/symptoms improve.
If $EtCO_2$ is available, ventilate to maintain an $EtCO_2$ of 28 – 30 mmHg.
IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

- IV - 0.9% NaCl (normal saline) KVO.
- CHILD: Administer fluid bolus 20 ml /kg, up to 60ml per kg, total if SBP falls below:
  - 12-16 years: 90 mmHg
  - 5-12 years: 80 mmHg*
  - 1-5 years: 75 mmHg*
  - <1 years: 65 mmHg*

*Administer fluid in children with normal SBP and who have other signs of decreased perfusion including tachycardia, loss of central pulses, increased capillary filling time of >2 secs.

THORACIC INJURIES – ADULT 4.5

BASIC STANDING ORDERS

Routine Patient Care.
Open chest wound: Cover an occlusive dressing, sealed on 3 sides or commercial device; if condition deteriorates, remove the dressing momentarily then reapply.
In the case of a flail segment with paradoxical movement, use positive pressure ventilation.
Consider ALS intercept.
Consider air medical transport.

INTERMEDIATE STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
Do not delay transport for IV access.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

In presence of tension pneumothorax, perform needle decompression.
Consider pain management (Refer to Pain Management Protocol 2.9).

BASIC/INTERMEDIATE STANDING ORDERS

Routine Patient Care.
Open chest wound: Cover with an occlusive dressing, sealed on 3 sides or commercial device; if condition deteriorates, remove the dressing momentarily then reapply.
In the case of a flail segment with paradoxical movement, use positive pressure ventilation.
Consider paramedic intercept.
Consider air medical transport.

PARAMEDIC STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
In presence of tension pneumothorax, perform needle decompression.
Consider pain management (Refer to Pain Management Protocol 2.9).

ADVANCED AIRWAY MANAGEMENT PROTOCOL/FAILED AIRWAY OPTIONS 5.0

Purpose:
To secure an airway and ensure adequate ventilation and oxygenation. Also to provide guidance for backup device for failed airway attempts.

Indications:
The following physiologic problems or parameters may be used as guidelines for initiation of an advanced airway:

Respiratory insufficiency of any etiology as manifested by or associated with:

- Severe dyspnea
- Poor or absent breath sounds
- Asymmetrical excursion
- Gross chest trauma
- Oxygen saturations <85%
- ABG with pCO2>55 mmHg or acidosis
- GCS <8 or combativeness

Procedure:

- Routine Patient Care.
- Prepare required equipment and suction as necessary
- Preoxygenate the patient
- Insert airway device
- Confirm placement using at least 3 methods
- Capnography waveform when possible
- Secure airway device and immobilize patient head.
- Transport to facility with appropriate monitoring enroute.

Document the following:

- Patient's presenting signs and symptoms, including vital signs, level of consciousness, oxygen saturation and capnography (when available).
- History of pain, severity, character and associated symptoms.
- Indications for protocol use.
- Device used, size of device, number of attempts, depth of tube, confirmation and method.
- Changes from baseline, if any, that occurred during transfer and transport.

OROTRACHEAL INTUBATION PROCEDURE

Clinical Indications:

- An unconscious patient without a gag reflex who is apneic or is demonstrating inadequate respiratory effort or is unable to control their airway.
- Any patient medicated for rapid sequence intubation.

Procedure:

- Prepare all equipment and have suction ready.
- Preoxygenate and hyperoxygenate the patient.
- Open the patient's airway. While holding the laryngoscope in the left hand, insert the blade into the right side of the patient's mouth, sweeping the tongue to the left.
- Use the blade to lift the tongue and the epiglottis either directly with the straight (Miller) blade or indirectly with the curved (Macintosh) blade.
- Once the glottic opening is visualized, insert the tube through the vocal cords and continue to visualize while passing the cuff through the cords.
- Remove the stylet from the tube and inflate the cuff of the tube by inserting 5-10cc of air.

Auscultate for bilateral equal breath sounds and absence of epigastric sounds. This should be repeated often especially after movement of the patient.
Confirm the placement of the tube by using an end-tidal CO_2 detector or esophageal bulb device.
Secure the tube.
Document the ETT size, time, results, and placement location (in cm at the level of the patient's teeth or gums) on the PCR. Also include in documentation the procedures and devices used for
Auscultate for bilateral equal breath sounds and absence of epigastric sounds. This should be repeated often especially after movement of the patient.
Confirm the placement of the tube by using an end-tidal CO_2 detector or esophageal bulb device.
Secure the tube.
Document the ETT size, time, results, and placement location (in cm at the level of the patient's teeth or gums) on the PCR. Also include in documentation the procedures and devices used for confirmation of the tube.

NASOTRACHEAL INTUBATION PROCEDURE

Clinical Indications:

A spontaneously breathing patient in need of intubation (inadequate respiratory effort, evidence of hypoxia or carbon dioxide retention, or need for airway protection).
Patient must be 12 years of age AND greater then the length of a pediatric length based resuscitation tape (Broselow tape)

Procedure:

Premedicate the patient with nasal spray.
Select the largest and least obstructed nostril and insert a lubricated nasal airway to help dilate the nasal passage.
Preoxygenate the patient. Lubricate the tube.
Remove the nasal airway and gently insert the tube keeping the bevel toward the septum (a gentle rotation movement may be necessary at the turbinates.)
Continue to pass the tube while listening for maximum air movement.
At the point of maximum air movement indicating proximity to the level of the glottis, gently and evenly advance the tube through the glottic opening on inspiration.
Upon entering the cords, the tube may cause the patient to cough, buck, strain, or gag. Do not remove the tube for this is normal. Be prepared to control the cervical spine and the patient, and be alert for vomiting.
Auscultate for bilateral equal sounds and absence of epigastric sounds. Observe for symmetrical chest expansion. The 15mm usually rests close to the nostril with proper positioning.
Inflate the cuff with 5-10 cc of air.
Confirm tube placement using end-tidal CO2 monitoring or an esophageal bulb device.
Secure the tube.

COMBITUBE PROCEDURE

Clinical Indications:

In an apneic patient when endotracheal intubation is not possible or not available.
Patient must be > 5 feet tall.
Patient must be unconscious.

Contraindications:

Intact gag reflex
Patients < 50 kg
Known esophageal disease
Allergy or sensitivity to latex (the pharyngeal balloon contains latex).

Procedure:

Preoxygenate and hyperventilate the patient.

Prepare and lubricate the tube. Check both balloons.
Grasp the patient's tongue and jaw with your gloved hand and pull forward.
Gently insert the tube until the teeth (or gums) are between the printed rings.
Inflate cuff #1 (blue pilot balloon) with 100cc of air.
Inflate cuff #2 (white pilot balloon) with 15cc of air.
Ventilate taller blue tube (#1) with bag valve mask.
Auscultate for breath sounds and sounds over the epigastrium.
Look for rise and fall of chest.
If breath sounds are positive and epigastric sounds are negative, continue to ventilate through the blue tube. The tube is in the esophagus.
In the case above you can aspirate stomach contents through the #2 white tube to relieve some gastric distention.
If breath sounds are negative and epigastric sounds are positive, attempt to ventilate through the shorter white (#2) tube and assess for breath sounds and epigastric sounds. If breath sounds are present and epigastric sounds are absent, continue to ventilate through the white tube (#2), you have intubated the trachea.
The device is secured in place by the large pharyngeal balloon.
Confirm tube placement by using an end-tidal CO2 detector or esophageal bulb device.

Endotracheal intubation with a Combitube in place:
The tube must be in the esophagus.
Prepare all equipment needed for endotracheal intubation.
Decompress the stomach by aspirating through the shorter, white tube (#2).
Hyperoxygenate the patient.
Deflate the bulbs on the Combitube and remove Combitube. Have suction equipment ready.
Rapidly proceed with endotracheal intubation.

LARYNGEAL MASK AIRWAY (LMA) PROCEDURE

Clinical Indications:
Inability to secure an endotracheal tube in a patient who does not have a gag reflex where at least one failed intubation attempt has occurred.
Appropriate intubation is impossible due to patient access or difficult airway anatomy.

Contraindications:
Intact gag reflex
Pulmonary Fibrosis
Morbid Obesity

Procedure:
Check the tube for proper inflation and deflation.
Lubricate the back of the mask with a water-soluble jelly.
Pre-oxygenate the patient with 100% oxygen.
Insert the LMA into the hypopharynx until resistance is met.
Inflate the cuff until a seal is obtained. (NOTE: This airway does not prevent aspiration of stomach contents.)
Connect the LMA to an bag-valve-device and assess for breath sounds, air entry, and end-tidal CO2.
Monitor oxygen saturation with pulse oximetry and heart rhythm with ECG.
Re-verify LMA placement after every move of the patient and upon arrival at the emergency department.

NEEDLE CRICOTHYROTOMY

Clinical Indications:
Failed airway protocol.

Management of an airway when standard airway procedures cannot be accomplished or have failed.

Procedure:

Have all supplies (including suction) available and ready.
Locate the cricothyroid membrane utilizing correct anatomical landmarks.
Using your non-dominant hand, secure the membrane.

Prep the area with an antiseptic swab (e.g.Betadine).
Using a syringe and needle system or commercial equivalent insert the needle through the cricothyroid membrane perpendicular to the surface of the membrane.
Aspirate for air with the syringe while inserting the needle.
Once air returns easily, stop advancing the device.
Attach jet ventilation device.
Assess breath sounds while ventilating patient. Make certain that ample time is used not only for inspiration but expiration as well. Remember that a 1:4 inspiration/expiration ratio is normal.
Secure the needle by the best method available, recognizing that this method may be direct hands-on control of the device throughout the transport.
If unable to obtain an adequate airway, resume basic airway management and transport the patient as soon as possible.
Notify the receiving facility as soon as possible of the need for a surgical airway regardless of the success of the procedure.

SURGICAL CRICOTHYROTOMY

Clinical Indications:

Failed airway protocol
Management of an airway when standard airway procedures cannot be performed or have failed in a patient greater then the length of a pediatric length based resuscitation tape (Broselow tape).

Procedure:

Have all supplies (including suction) available and ready.
A commercially available device may be desirable.
Locate the cricothyroid membrane utilizing correct anatomical landmarks.
Prep the area with an antiseptic swab (Betadine).
Make a 1-inch vertical incision through the skin and subcutaneous tissue using a scalpel.
Using blunt dissection technique, expose the cricothyroid membrane. This is a bloody procedure.
Make a horizontal stabbing incision approximately 1/2 inch through the membrane.
Using a dilator, hemostat, or gloved finger to maintain surgical opening, insert the cuffed tube into the trachea (Cric tube from the kit or a #6 endotracheal tube is usually sufficient.).
Inflate the cuff with 5-10cc of air and ventilate the patient while manually stabilizing the tube.
All of the standard assessment techniques for insuring tube placement should be performed (auscultation, chest rise & fall, end-tidal CO2 detector, etc.)
Secure the tube.

VENTILATOR OPERATION

Clinical Indications:

Management of the ventilations of a patient during a prolonged or inter-facility transport of an intubated patient.

Procedure:

Knowledge of the operation of the ventilator is crucial for the transporting personnel.
All ventilator settings, including respiratory rate, FiO_2, mode of ventilation, PEEP, and tidal volumes should be recorded prior to initiating transport. Additionally, the recent trends in oxygen saturation should also be noted.
Apply all in-house settings to the transport ventilator.
Apply ventilator to patient and observe for tolerance, adjust as necessary.
Once in the transport unit, switch the oxygen source over to the main tank and once again observe patient tolerance of the ventilator and its settings.
Assess breath sounds often and frequently and assess the patient's respiratory status, noting any decrease in oxygen saturation or changes in tidal volumes, peak pressures, etc.
If any significant change in patient condition occurs, including vital signs, oxygen saturation, or there is a concern regarding ventilator performance/alarms, remove the ventilator from the endotracheal tube and use the bag-valve-mask to oxygenate patient with 100% oxygen.

SUCTIONING (ADVANCED)

Clinical Indications:

Obstruction of the airway (secondary to secretions, blood, and/or any other substance) in a patient currently being assisted by an airway adjunct such as a nasotracheal tube, endotracheal tube, Combitube, tracheostomy tube, or a cricothyrotomy tube.

Procedure:

Ensure the suction device is operable.
Preoxygenate the patient.
Keeping an aseptic technique, attach the suction catheter to the suction unit.
If applicable, remove ventilation devices from the airway.
Insert the sterile end of the suction catheter into the tube without suction. Insert until resistance is met, pull back approximately 1-2 cm.
Once the desired depth is met apply suction by occluding the port and slowly remove the catheter from the tube, using a twisting motion.
Suctioning duration should not exceed 15 seconds.
May use saline flush to loosen secretion and facilitate suctioning.
Reattach the ventilation device and oxygenate the patient.

INTRAOSSEOUS ACCESS 5.1

DEFINITION: Intraosseus infusion establishes access in a patient where venous access cannot be rapidly obtained. The bone marrow space serves as a 'noncollapsable vein' and provides access to the general circulation for the administration of fluids and resuscitation drugs. This protocol applies to all appropriate IO insertion sites.

INDICATION: Drug or fluid resuscitation of a patient in need of immediate life-saving intervention and unable to obtain peripheral IV access.

CONTRAINDICATIONS:
Placement in or distal to a fractured bone.
Placement at a burn or infected site.

COMPLICATIONS: Infusion rate may not be adequate for resuscitation of ongoing hemorrhage or severe shock, extravasation of fluid, fat embolism, and osteomyelitis (rare).

PROCEDURE:

EQUIPMENT:

15 to 19 gauge bone marrow needle or FDA approved commercial intraosseous infusion device
Betadine and gloves
Primed IV tubing, stopcock, IV solution
10cc syringe with 0.9% NaCl (normal saline)
Pressure pump/bag or 60cc syringe for volume infusion or slow push

PROCEDURE:

Place the patient in a supine position.
Identify the bony landmarks. The site of choice for pediatric patients is the proximal tibia, 1-2 cm medially and 1-2 cm distal to the tibial tuberosity on the anteromedial surface.
Prep the site with Betadine.
When using bone marrow or spinal needle, direct and insert the needle with the stylet in place perpendicular to the bone or angled away from the joint, avoiding the epiphyseal plate. Insert with pressure and a boring or screwing motion until penetration into the marrow, which is marked by a sudden lack of resistance, then remove the stylet.
When using a FDA-approved commercial IO device, follow manufacturer's instructions.
Needle is appropriately placed if the following are present:

- Aspiration with syringe yields blood with marrow particulate matter.
- Infusion of saline does not result in infiltration at the site.
- Needle stands without support.

Attach IV tubing, with or without stopcock.
Flow rates to gravity may be unacceptably slow. Consider placing an IV solution in a pressure bag inflated to 300 torr or "pushing" the fluid bolus with a syringe and 3-way stopcock.
Stabilize needle on both sides with sterile gauze and secure with tape (avoid tension on needle).

EXAMPLE OF ADULT PROCEDURE FOR COMMERCIAL INTRAOSSEOUS DEVICE:

EQUIPMENT:

- B.I.G. (Bone Injection Gun)
- Betadine and Gloves
- Primed IV Tubing, stopcock, IV solution
- 10 ml syringe with 0.9% NaCl (normal saline)
- Pressure pump/bag

PROCEDURE:

- Follow manufacturer's recommendations.
- Place the patient in a supine position. Expose site.
- Prepare skin for invasive procedure using aseptic technique.
- Position blue end of BIG at 90^{o} angle to bone surface at a point 1-2 cm medially and 1 cm above the tibial tuberosity on the anteromedial surface.
- Remove safety clip.
- Maintain firm pressure on the BIG with the heel of your hand and fire the device
- Remove BIG.
- Remove trocar.
- Fix cannula to skin surface using safety clip and tape.
- Needle is appropriately placed if the following are present:
    - Aspiration with syringe yields blood with marrow particulate matter.
    - Attempt at infusion of saline is not met with resistance or infiltration at the site.
    - Needle stands without support.
- Connect IV tubing and begin infusion.

INDICATIONS: Prehospital providers may be called upon to provide certain immunizations as necessary to assist State Health Officials in the event of a public health crisis or under the written order of a physician.

NON-PATIENT SPECIFIC ORDERS

A non-patient specific order authorizes paramedics to administer specified immunization agents or anaphylaxis treatment agents for a specified period of time to an entire group of persons such as school children, employees, patients of a nursing home, etc.

Some examples of non-patient specific orders are:

- *Administer Influenza vaccine 0.5 ml. IM to all incoming freshmen students at X College who are eligible per protocol.*
- *Administer Influenza vaccine 0.5 ml IM to all employees of X organization who request it and who are eligible by protocol.*
- *Administer Influenza vaccine 0.5 ml. IM to all X town residents who request it and who are eligible by protocol.*
- *Administer Hepatitis B series to all employees of X organization eligible per protocol.*

Immunizing Agents

Many of the immunizations listed in the Centers for Disease Control and Prevention (CDC) guidelines fall under this protocol. The list of authorized immunizing agents differs for adults and children. Adults are persons who are 18 years of age or older; children are persons under 18 years of age.

The agents are:

Immunizing Agents for Adults

- Immunizing agent
- Diphtheria
- Hepatitis A
- Hepatitis B
- Inactivated Polio
- Influenza
- Measles
- Meningococcus
- Mumps
- Pneumococcus
- Rubella
- Smallpox vaccine
- Tetanus
- Varicella

Immunizing Agents for Children

- Acellular Pertussis
- Diphtheria
- Haemophilus Influenza Type b (HIB)
- Hepatitis A
- Hepatitis B
- Inactivated Polio
- Influenza
- Measles
- Meningococcus
- Mumps
- Pneumococcal Conjugate
- Rubella
- Tetanus
- Varicella

Note: The Medical Control Board may add immunizing agents in accordance with the recommendations of the Centers for Disease Control and Prevention and the New Hampshire Department of Health and Human Services.

ADMINISTRATION OF IMMUNIZATIONS

The non-patient specific standing order and protocol must be authorized by a physician.

Epidemics

Any paramedic may administer any immunizing agent that is authorized by a non-patient specific standing order and protocol as part of an immunization program when the immunization program is instituted as a result of an epidemic declared by public health officials.

Protocol Requirements

- Ensure that the potential recipient is assessed for contraindications to immunizations;
- Inform each potential immunization recipient of the potential side effects and adverse reactions, orally and in writing, prior to immunization and inform each potential immunization recipient, in writing, of the appropriate course of action in the event of an untoward or adverse event. Vaccine Information Statements (VIS), developed by the Centers for Disease Control and Prevention (CDC), United States Health and Human Services are recommended for this use.
- Obtain consent for the immunization from the potential recipient, or from a person legally responsible in the case of a minor or otherwise incapable person, before the immunization is administered.
- In cases of minors and persons incapable of personally consenting to immunization, consent may be gained by informing the legally responsible person of the potential side effects and adverse reactions in writing and obtaining a written consent prior to administering the immunization.
- Provide to each legally responsible immunization recipient, a signed certificate of immunization noting the recipient's name, date of immunization, address, immunization agent, administering nurse, immunizing agent, manufacturer and lot number, and recommendations for future immunizations.
- Have available on site, agents to treat anaphylaxis including, but not limited to, epinephrine and necessary needles and syringes.
- Report all adverse immunization outcomes to the Vaccine Adverse Event Reporting System (VAERS) using the appropriate form, from the Centers for Disease Control and Prevention, United States Department of Health and Human Services.
- Ensure that the record of all persons immunized includes: the non-patient specific standing order and protocol utilized, recipient's name, date, address of immunization site, immunizing agent, manufacturer and lot number of administered vaccine(s) and recommendations for future immunizations.
- For the administration of the influenza vaccine to adults only, it is acceptable to maintain a log of the names, addresses and phone numbers of all adult patients, immunized with the influenza vaccine under non-patient specific orders in a dated file.
- Ensure that a record is kept of all potential recipients, noting those who refused to be immunized.

RAPID SEQUENCE INDUCTION (RSI) 5.3

INDICATION: Immediate severe airway compromise in the context of trauma, drug overdose, status epilepticus, etc., where respiratory arrest is imminent.

CONTRAINDICATION: Extensive recent burns or crush injuries greater than 24 hours old.

DEFINITION: RSI is the near-simultaneous administration of neuromuscular blocking agents and sedative-hypnotic drugs in order to facilitate oral intubation of a patient with the least likelihood of trauma, aspiration, hypoxia and other physiologic complications.

PROCEDURE: THE SEVEN "P'S"

PREPARATION: The time-frame is limited, but the operator must have adequate Ambu-mask/oxygen sources, two laryngoscope handles, an assortment of blades, two assistants familiar with the procedure, one or two secure IV's, rescue airway devices, oxymetry & capnography monitoring, bulb-style tube checker.

PREOXYGENATION: In emergent cases, three mask breaths with 100% oxygen may have to suffice. When possible a nonrebreather mask for several minutes is more effective in performing nitrogen washout and establishing an adequate oxygen reserve during the procedure.

PREMEDICATION:
Lidocaine (1.5mg/kg) given exactly 2 minutes before intubation may prevent a rise in ICP for head injured patients.
Atropine should be given to bradycardic adults at 0.5mg IVP.

PARALYZE:
Etomidate (0.3mg/kg IV).
Apply cricoid pressure and maintain until the airway is secure.
Succinylcholine (1.5mg/kg IVP) immediately after etomidate.

PASS THE TUBE: Observe for fasciculations 90 seconds after succinylcholine. After paralysis is achieved, pass the tube. .

PROOF OF PLACEMENT: Confirm placement using at least 3 methods including capnography waveform when possible and then secure airway device and immobilize patient head. Document appropriately.

POST INTUBATION CARE: The patient may be given incremental doses of midazolam (0.05-0.10mg/kg IVP) or lorazepam 1 - 2 mg IV as needed for sedation. Vecuronium 0.1 mg/kg IVP or rocuronium 1 mg/kg IVP may considered with on-line medical consultation for continued paralysis. Consider wrist restraints.

MANAGEMENT OF PATIENT SUBDUED BY TASER 5.4

State and local police departments may use a conductive energy weapon called a Taser. This device is a non-lethal tool. When used, the device discharges a wire that at the distal end contains an arrow-like barbed projectile that penetrates the suspect's skin and embeds itself, allowing a 5-second incapacitating electric shock to be administered. Depending on the agency, officers may or may not routinely initiate EMS response when the device is discharged on a suspect. However, EMS will likely be requested if the Taser strikes the patient in the face, neck, groin or spinal column or other complications arise.

BASIC STANDING ORDERS

Routine Patient Care.
Obtain history from the patient including date of last tetanus shot and any cardiac history.
Ensure the officer has disconnected the wires from the hand-held unit before contact with patient.
Identify location of probes on the patient's body. If **any** of the probes are embedded in the following areas **do not remove** them and transport the patient to an Emergency Department: Face, Neck, Bone, Groin and Spinal column.
Confer with the officer and determine the patient's condition from the time of the Taser discharge until EMS arrival.

REMOVAL OF PROBES BY EMS PROVIDERS

If the probes are located in an area not excluded previously, it may be removed. To remove:
Place one hand on the patient where the probe is embedded and stabilize the skin surrounding the puncture site.
Place your other hand firmly gripping the probe.
In one **quick** fluid motion pull the probe straight out of the puncture site.
Repeat procedure with second probe.
Removed probes should be handled and disposed of like contaminated sharps in a designated sharps container.

TREATMENT AND FOLLOW-UP INSTRUCTIONS

Clean puncture sites and bandage.
If patient has not had a tetanus shot in the last 5 years, they should be advised to get one.
Transport decisions regarding patients subdued by Taser should be based on patient condition.
If transport is indicated based on patient condition and the patient refuses treatment and/or transport they should be advised to seek medical attention immediately or to contact EMS if they experience any abnormal signs or symptoms. Exceptions to the right to refuse may be altered mental status due to alcohol or drug intoxication or under arrest by police, confer with local law enforcement.

INTERMEDIATE STANDING ORDERS

IV access, obtain blood sample and administer fluids to maintain systolic blood pressure >90 mmHg.
EKG monitoring for cardiac abnormalities

PARAMEDIC STANDING ORDERS

If patient is greater than 35 years old, consider 12-lead evaluation.
Consider pain management if necessary and appropriate. See Pain Management Protocol 2.9.

BLOODBORNE PATHOGENS

Emergency Medical Services personnel should assume that all bodily fluids and tissues are potentially infectious with bloodborne pathogens including HIV (causing AIDS) and HBV (causing hepatitis), and must protect themselves accordingly by use of body substance isolation (BSI).

Body substance isolation procedures include the appropriate use of hand washing, protective barriers (such as gloves, masks, goggles, etc.), and care in the use and disposal of needles and other sharp instruments. EMTs are also encouraged to obtain the hepatitis B vaccine series to decrease the likelihood of hepatitis B transmission.

EMTs who have exudative lesions, weeping dermatitis, or open wounds should refrain from all direct patient care and from handling patient-care equipment as they are at increased risk of transmission and reception of bloodborne pathogens through these lesions. Transmission of bloodborne pathogens has been shown to occur when the blood of the infected patient is able to come in direct contact with the blood of the health-care worker.

EMTs who have had a direct bloodborne pathogen exposure should immediately wash the exposed area with soap and water and a suitable disinfectant. The exposed area should then be covered with a sterile dressing. Upon arrival at the destination hospital, after responsibility for the patient has been transferred to the emergency department, the EMT should thoroughly cleanse the exposed site, complete a state of New Hampshire Emergency Response/Public Safety Worker Incident Report Form, and sign in to the Emergency Department as a worker's compensation patient. The only exception to this latter step is when the squad has a designated exposure officer and medical advisor wherein the exposed EMT has definitive and immediate medical care elsewhere.

AIRBORNE PATHOGENS

EMTs who believe they have been exposed to an airborne pathogen may proceed as above in getting timely medical care. It is expected that a properly filled out Patient Care Report will allow hospital infection control staff to contact EMTs involved in patient care where that patient was subsequently found to have a potential airborne pathogen such as Tuberculosis, Neisseria meningitis, SARS, etc.

AIRBORNE PERSONAL PROTECTIVE EQUIPMENT (APPE)

Recommended APPE consists of a fit–tested N95 respirator. In the absence of an N95 mask, the EMS providers should wear a surgical mask.

Apply APPE if the patient presents with the following signs or symptoms:
Cough
Fever
Rash

Limit the number of personnel in contact with suspected patients to reduce the potential of exposure to other providers and bystanders.

Patients suspected of being infected with a possible airborne pathogen should be masked if tolerated. Patients requiring oxygen therapy should receive oxygen through a mask with a surgical mask placed over the oxygen mask to block pathogen release. Close monitoring of the patient's respiratory status and effort should be maintained.

APPE should be in place when performing suctioning, airway management and ventilation assistance

(bag-valve-mask) for suspect patients.

Limit procedures that may result in the spread of the suspected pathogen, e.g. nebulizer treatments.

Exchange of fresh air into the patient compartment is recommended during transport of patient with a suspected airborne pathogen.

Early notification to the receiving hospital should be made such that the receiving hospital may enact its respective airborne pathogen procedures.

DECONTAMINATION

In addition to accepted decontamination steps of cleaning surfaces and equipment with an approved solution and proper disposal of contaminated disposable equipment, the use of fresh air ventilation should be incorporated (open all doors and windows to allow fresh air after arrival at the hospital).

All personnel in contact with the patient should wash their hands thoroughly with warm water and an approved hand-cleaning solution.

Ambulances equipped with airborne pathogen filtration systems should be cleaned and maintained in accordance with manufacturer guidelines.

CRIME SCENE/PRESERVATION OF EVIDENCE 6.1

If you believe a crime has been committed, immediately contact law enforcement.
Protect yourself and other EMS personnel. You will not be held liable for failing to act if a scene is not safe to enter. Once a crime scene is deemed safe by law enforcement, initiate patient contact and medical care.
Do not touch or move anything at a crime scene unless it is necessary to do so for patient care.
Have all EMS providers use the same path of entry and exit. Do not walk through fluids on the floor.
Observe and document original location of items moved by crew.
When removing patient clothing, leave intact as much as possible. Do not cut through clothing holes made by gunshot or stabbing.
If you remove any items from the scene, such as impaled object or medication bottle, document your action and advise investigating officers.
Do not sacrifice patient care to preserve evidence.
Consider requesting a law enforcement officer to accompany the patient in the ambulance to the hospital.
Document statements made by the patient or bystanders on the EMS patient care report.
Inform staff at the receiving hospital this is a “crime scene” patient.
If the patient is obviously dead, contact medical control for directions to withhold resuscitative measures and do not touch body.
For traffic accidents, preserve the scene by parking away from skid marks and debris.

ABUSE & NEGLECT – CHILD, ELDER OR OTHER VULNERABLE INDIVIDUALS 6.2

Purpose: To provide the process for identification, assessment, management and reporting of patients with suspected physical abuse (children, elderly, or other vulnerable individuals), exploitation and/or neglect.

Procedure for Assessment
Treat and document only physical injuries requiring immediate attention using the appropriate medical treatment protocol, without causing undue emotional trauma for non life-threatening injuries. Secure and bag (in paper), whenever possible, any clothing or items that could be preserved for evidence.
Interview with patient shall be conducted calmly, with respect and privacy, and should include close observation for:

- Over-sedation
- Inappropriate fears
- Avoidance behaviors
- Poor parent-child bonding
- Inappropriate interaction with caregiver

Do not address specifics of abuse or neglect.
Obtain pertinent history relating to presenting injuries.
Carefully and specifically document verbatim any patient statements of instances of rough handling, sexual abuse, alcohol/drug abuse, verbal or emotional abuse, isolation or confinement, misuse of property, threats, and gross neglect such as restriction of fluids, food, or hygiene.
Note problems with living conditions and environment.
Note any of the following potential indicators of an abusive history or environment:

- Unsolicited history provided by the patient
- Delay in seeking care for injury
- Injury inconsistent with history provided
- Conflicting reports of injury from patient and care-giver
- Patient unable, or unwilling, to describe mechanism of injury
- Lacerations, bruises, ecchymoses in various stages of healing
- Multiple fractures in various stages of healing
- Scald burns with demarcated immersion lines without splash marks
- Scald burns involving anterior or posterior half of extremity
- Scald burns involving buttocks or genitalia
- Cigarette burns
- Rope burns or marks
- Patient confined to restricted space or position
- Pregnancy or presence of sexually transmitted disease in a child less than 12 years.

Special Considerations
Law enforcement may be contacted at the discretion of the EMS provider, however assure the safety of EMS personnel before entering the scene.
If patient is not transported, the suspected abuse must still be reported. If a parent/guardian refuses treatment of a minor child whom you feel needs medical attention, contact law enforcement immediately.
Careful and specific documentation is vital because the “story” often changes as the investigation proceeds.
Patients 14 years of age or older DO NOT need parental consent for treatment of sexually transmitted diseases (RSA 141-C:7).
Any minor 12 years of age or older may voluntarily submit himself to treatment for drug dependency as defined in RSA 318-B:1, IX.
CHILD ABUSE: You must make a verbal report within 24 hours of the patient contact to the NHDCYF Child Abuse Hotline (800-894-5533). Informing hospital personnel does not fulfill your legal reporting responsibilities in compliance with NH RSA Chapter 169-C Child Protection Act.
ELDER ABUSE: You must make a report to the NH Division of Elderly and Adult Services District Office

(800-351-1888). Informing hospital personnel does not fulfill your legal reporting responsibilities in compliance with NH RSA Chapter 161-F Elderly and Adult Services.

Note: Nothing contained herein shall be construed to mean that any minor of sound mind is legally incapable of consenting to medical treatment provided that such minor is of sufficient maturity to understand the nature of such treatment and the consequences thereof.

RESPONSE TO DOMESTIC VIOLENCE 6.3

When domestic violence is suspected, the health-care provider will further assess the patient and take appropriate action in accordance with New Hampshire State law.

PURPOSE
To ensure that battered women and men who have experienced domestic abuse or neglect are identified and provided with comprehensive medical and psychosocial interventions.

INDICATORS OF DOMESTIC VIOLENCE: The following is a list of potential indicators of domestic violence. If the patient presents with one or more of the following indicators, further assessment is warranted.

The patient admits to past or present physical or emotional abuse, as a victim or witness.
The patient denies physical abuse, but presents with unexplained bruises, whip-lash injuries consistent with shaking, areas of erythema consistent with slap injuries, grab marks on arms or neck, lacerations, burns, scars, fractures or multiple injuries in various stages of healing, fractured mandible, or perforated tympanic membranes.
The patient presents with injury sites suggestive of battering. Common sites of injury are areas hidden by clothing or hair (e.g., face, head, chest, breasts, abdomen and genitals). Accidental injuries usually involve the extremities whereas domestic violence often involves both trunk and extremity injuries.
The extent or type of injury is inconsistent with the explanation offered by the patient.
The woman is pregnant. Violence often begins with the first pregnancy, and with injuries to the breasts or abdomen.
The patient presents evidence of sexual assault or forced sexual actions by her partner.
The partner (or suspected abuser) insists on staying close to the patient and may try to answer all questions directed to her.
The patient is afraid of returning home and fears for the safety of her children.
A substantial delay exists between the time of the injury and presentation for treatment. The patient may have been prevented from seeking attention earlier, or may have had to wait for the batterer to leave.
The patient describes the alleged "accident" in a hesitant, embarrassed or evasive manner, or avoids eye contact.
The patient has "psychosomatic" complaints such as panic attacks, anxiety, choking sensation, or depression.
The patient has complaints of chronic pain (back or pelvic pain) with no substantiating physical evidence. This may signify fear of impending or actual physical abuse.
The patient or partner has a history of psychiatric illness, alcohol and/or drug abuse.
The patient has a history of suicide attempts, or suicidal ideation. Battering accounts for one in every four suicide attempts by all women and half of all suicide attempts by black women.
Medical history reveals many "accidents" or remarks indicating that previous injuries were of suspicious origin.
The patient has a history of self-induced abortions or multiple therapeutic abortions.
The patient has a pattern of avoiding continuity in health care.

RESPONSIBILITY OF EMS PROVIDER

Decide whether to withdraw to a staging area and call for police, or proceed with caution.
Don't hesitate to return to vehicle to make decisions, notify police and/or medical control. Consider using cell phone vs. radio.

If decision is to proceed:
Clearly and simply identify yourself and your role. Use non-threatening body language and approach.
Use team approach. Designate one provider to observe for safety, one or more to work on patient, another to calmly distract aggressor or discreetly assess children for injuries.

Be aware of surroundings: The number and location of exits, number and location of people in the residence, potential weapons and hiding places; position rescuers with access to exit.
Let occupants lead down hallways or into stairwells or rooms. Keep them in front.
Avoid treating patient in a bedroom (only one exit, intimate setting, often weapons hidden) or kitchen (many possible weapons). Use hard chairs rather than upholstered furniture; weapons are easily hidden among cushions.
Limit number of people present: responders, neighbors, etc.; secure pets.
Attempt to separate patient from suspected batterer for treatment, questioning. If possible, move patient to ambulance to assess and treat, even if non-transport.
Use only paper bags to collect evidence. Take appropriate body substance isolation precautions.

DOCUMENTATION & REPORTING RESPONSIBILITIES

Per NH RSA 631:6, a person must report to the police any gunshot wound or *any other injury* he/she believes was caused by a criminal act, with the following exception:

If the patient is 18 years old or older *and* if the injury was caused by sexual assault or domestic violence *and* if it is not a gunshot wound or other *serious* bodily injury, the patient can refuse to have the information released to the police.

RESOURCES AND REFERRALS

NH Coalition Against Domestic and Sexual Violence (NHCADSV) is a network of 14 agencies across the state which support survivors of domestic and sexual violence. All of the agencies offer the following free, confidential services:
24-Hour Crisis Line (1-800-852-3388 in NH, 603-225-9000 outside NH, etc.)
Emergency shelter and transportation
Legal advocacy
Hospital and court accompaniment
Information about public assistance

GUIDING PRINCIPLES FOR DOMESTIC VIOLENCE ASSESSMENT AND INTERVENTION

Increase the safety of domestic violence victims including the elderly and their children. Respect the right of domestic violence victims for self-determination. Hold perpetrators, not victims, responsible for the violence & for stopping it. Advocate on behalf of domestic violence victims and their children. Be willing to make changes in both individual practice and in the health-care system in order to improve the response to domestic violence victims.

DO NOT RESUSCITATE (DNR) ORDERS 6.4

Recognized DNR documentation in New Hampshire:

- Orange DNR Bracelet (not widely used): must be on the patients wrist.
- "DNR" order: Written by a physician at a nursing home, hospital, or other in-patient care setting.
- "PORT" (Physician Order Regarding Treatment) Pink Card: Accompanying patient from facility to facility or in their home.
- Living Will: May or may not specify DNR status.
- DPOA for Healthcare: A document designating an individual to make healthcare decisions for another if that person lacks capacity to make decisions for him or herself. The DPOA can designate if resuscitation should/should not be instituted without written documentation.

EMTs are encouraged to contact Medical Control in any instance where the patient's DNR status is unclear.

Any patient who is deemed to have a valid DNR order as outlined above has indicated their wishes to not be resuscitated with basic or advanced life support measures. They do wish maximum comfort care.

If the above conditions are met, EMTs should perform the following procedures:

- Do **not** do chest compressions or actively assist ventilations via BVM.
- Do **not** intubate.
- Do **not** defibrillate.
- Do **not** use external pacemaker.
- Do **not** start IV unless it is anticipated that intravenous medications will be utilized.

EMTs **may** perform any comfort measures to these patients within their scope of EMT practice per the usual treatment guidelines, including, but not limited to:

- oxygen therapy via simple mask, non-rebreather mask, or nasal cannula
- medications for treatment of pain, respiratory distress, dysrhythmias
- intravenous fluid therapy for medication access
- mouth or airway suctioning

EMTs are encouraged to contact Medical Control to define prehospital treatment in these instances.

NOTE: All patients without valid DNR documentation should be given full resuscitative efforts by prehospital personnel

SPECIAL RESUSCITATION SITUATIONS AND EXCEPTIONS 6.5

WHEN NOT TO START

DOA. A person is presumed dead on arrival when they are apneic and pulseless in the context of transection of head or trunk, extensive full thickness burns, deforming head trauma, or rigor mortis/lividity.
DNR. Full palliative measures should be instituted when the person or family has evidence of a Do Not Resuscitate order at hand. An attending physician's order at the bedside or an on-line order from medical control are equivalent. [Palliative measures are comfort measures exclusive of BCLS and/or ACLS, but they may include such measures as airway suctioning and positioning.]
INFANT DEATH (SIDS). An infant under the age of three months who is apneic, asystolic and meets the non-trauma criteria in DOA may be presumed dead. In some cases, resuscitation and transport may be initiated. Activation of family support systems may be beneficial.
NEONATE DEATH: a neonate who is apneic, asystolic (heart beat and umbilical cord pulse) and meets the nontrauma criteria in DOA may be presumed dead.
MCI. During a Mass Casualty Incident EMS Providers should not attempt to resuscitate the near-arrest or full-arrest Category Black (expectant) persons if personnel are required to care for the Category Red (immediate) patients.
BLUNT TRAUMA patients with significant injuries, apnea and electrical asystole.
SCENE SAFETY. The physical environment is not safe for providers.

WHEN TO STOP

Resuscitation may be stopped under the following circumstances:

- Exhaustion of EMS providers.
- No return of spontaneous vital signs after 20 minutes of combined BCLS and/or ACLS efforts in the absence of hypothermia.
- The physical environment becomes unsafe for providers.
- If directed to do so by Medical Control

DECLARING DEATH IN THE FIELD

Do not initiate resuscitation when the patient is apneic and pulseless and other obvious signs of death are present:

- Rigor mortis and or lividity or neonatal maceration
- Injury incompatible with life (decapitation, transection of head or trunk, extensive full thickness burns, massive blunt trauma)

NOTES:

- Even in the case of an infant, death may be declared in the field, however in some cases resuscitation and transport may be initiated. Activation of family support systems may be beneficial.
- Neonates: Contact medical resource hospital if indications are present that gestational age is less than 22 weeks and neonate shows signs of obvious immaturity (translucent, gelatinous skin; lack of fingernails; fused eyelids.) In some cases, resuscitation and transport may be initiated. Activation of family support systems may be beneficial.
- In all cases where death is declared in the field, local law enforcement as well as the NH Medical Examiners office MUST be consulted.

MASS CASUALTY INCIDENT

Do not attempt resuscitation of near arrest or full arrest patients (category Black/Expectant) if EMS personnel are required to care for category Red/Immediate patients.

DOCUMENTATION

Complete a patient care record (PCR) in all cases.
Special orders including DNR, on-line medical control, etc.
MCI conditions may require a Tag in addition to an abbreviated PCR.
Record any special circumstances or events that might impact patient care or forensic issues.

LEGAL STANDING:

All deaths are potentially criminal until the Medical Examiner declines jurisdiction.

ADVANCED SPINAL ASSESSMENT 6.6

PURPOSE: To define patients who do not require spinal immobilization or who may have spinal immobilization devices removed in the field.

The principles of this procedure are probably safe and efficacious regardless of the mechanism of injury. However, exceptions may exist, and every provider's comfort level may be different. Therefore, each provider and team must decide on a case-by-case basis whether to utilize the following assessment tool:

INDICATIONS

Reliable Patient
- >12 years of age.
- Calm and cooperative
- No altered mental status (dementia, brain injury, developmental delay, psychosis, etc.)
- No evidence of alcohol or drug intoxication.
- No acute stress reaction.
- Not distracted by circumstances or injuries to self or others.
- No communication barriers (deafness, language, etc.).
- No paresthesias or other neuro symptoms.

Denies Spinal Pain

No Spinal Tenderness with Palpation

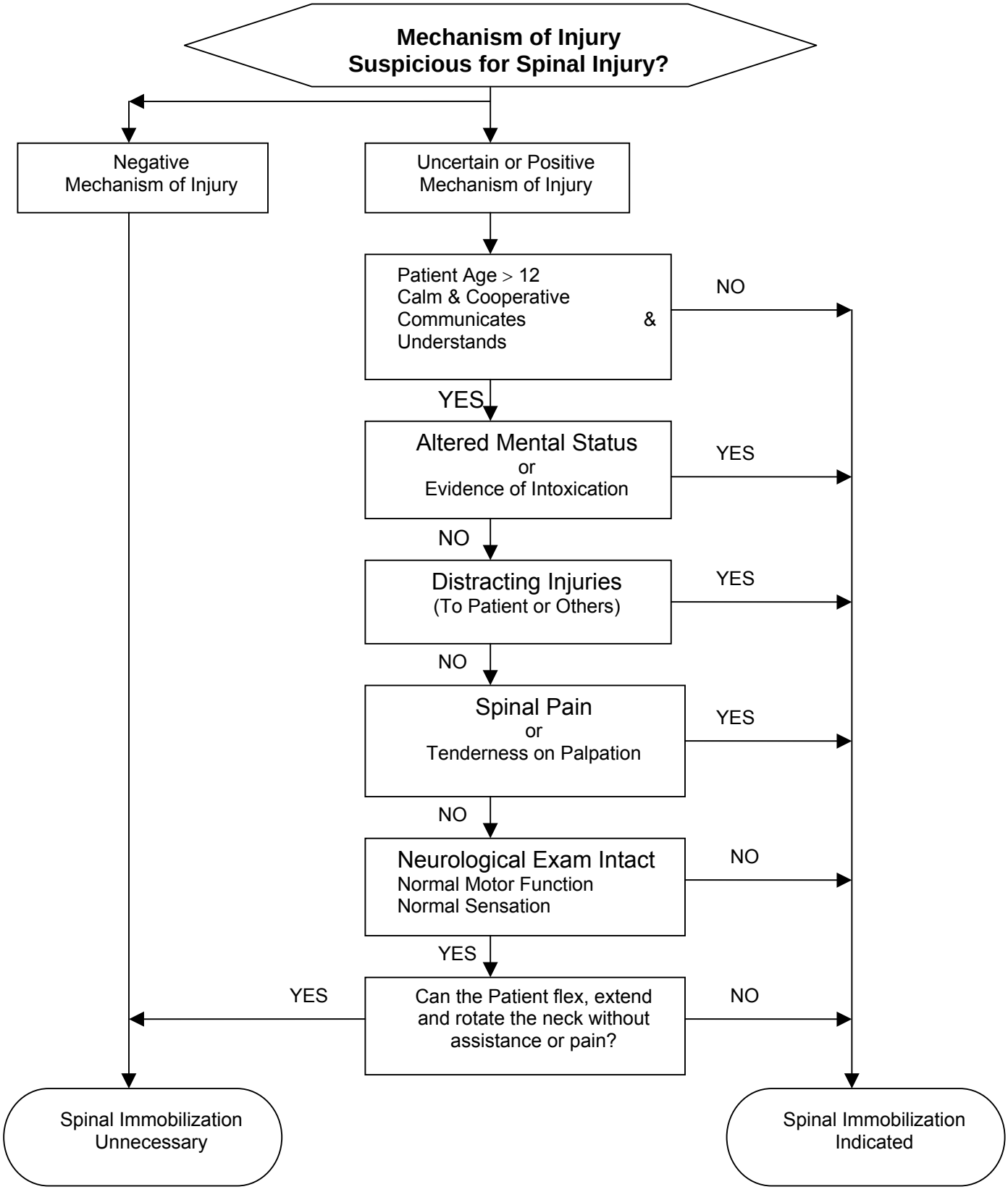
Motor Exam Intact
- Finger abduction/adduction.
- Finger/wrist flexion/extension.
- Foot/great toe extension/flexion.

Neurosensory Exam Intact
- Soft/sharp touch discrimination in upper and lower extremities

Finally

If the patient meets the criteria above, and then, they can flex/extend/rotate their neck without pain or assistance, then spinal immobilization is not necessary.

Advanced Spinal Assessment Algorithm



The medical care provided at the scene is the responsibility of the highest level of EMS provider who has responded by usual dispatch systems to that scene. Passersby who stop to help, even though possibly more highly trained than the system providers, may NOT assume responsibility (except as outlined below) but may be allowed to help in care at the discretion of the lead EMS provider and assuming they have proof of licensure.

When an EMS provider, under medical control (on- or off-line), arrives at the scene of an emergency, the provider acts as the agent of medical control, i.e., the on-line physician is ultimately responsible.

Any healthcare provider (MD, PA, RN, nurse midwife, non-NH licensed EMS provider, etc.) who is not an active member of the responding EMS unit, and who is either at the scene at the time of EMS' arrival or arrives after an EMS unit provider has initiated care, and who desires to continue to participate, should be put in touch with the on-line medical control physician.

At no time should an EMS provider provide care outside of their scope of training and/or protocols.

REFUSAL OF CARE 6.8

Competent adult patients (age 18 or older) have a right to refuse prehospital care. These patients must sign a "Refusal of Care" form and demonstrate that they understand the benefits and risks associated with refusing treatment and that they will be responsible for this decision. The "Refusal of Care" form should be signed, dated and witnessed preferably by a competent relative, friend, police officer, or impartial third person.

A person is competent to refuse care if they understand the potential life-threatening causes and consequences of their decision, and they can describe these consequences in their own words. A patient who is not competent cannot refuse patient care. In these circumstances, attempts should be made to form an alliance with the patients. Family members, friends, counselors, or police should be recruited to assist in getting cooperation for administration of proper and timely prehospital care. Physical restraint may be required as a last resort.

Patients who are minors (under age 18) cannot refuse care. However, the child's parent or legal guardian of these minors may sign the "Refusal of Care" form on behalf of these minors as long as the adults demonstrate understanding and are willing to assume responsibility for the minor's care or lack of care. Telephonic refusal of care from a family member may suffice to abort transport. When in doubt, contact medical control.

If the individual is under the age of 18 and refuses treatment or transport AND, is in such circumstance or situation that presents an imminent danger to his/her health or life, police may take him/her into protective custody under RSA 169-C. (see RSA and Administrative Rule Section). You MUST have the consent of a parent or guardian or other caretaker to refuse services (follow refusal of treatment protocol).

If the individual is an adult and refuses an evaluation or follow up AND you believe s/he is suicidal, and/or is in immediate danger of bodily injury to themselves or others as a result of mental illness, you may request police take the individual into protective custody under RSA 135C:28, III (see RSA and Administrative Rule Section) AND/OR is intoxicated AND in need of medical treatment or protective custody, police can take custody of the individual under RSA 172:B3 (see RSA and Administrative Rule Section)

If the individual would benefit from an evaluation or treatment, but does not meet either of the above criteria and refuses follow up:

- Avoid leaving him/her alone when you clear the scene.
- Encourage him/her to call a friend, neighbor, family member, minister, etc. to come be with him/her. Ask to speak directly to this person and communicate your concerns and explain why you feel s/he is at risk and could benefit from follow up evaluation or treatment.
- Have the individual call Samaritans 357-5006 or Headrest 1-800-639-6095 (both provide phone support for suicidal individuals)

A patient care record (PCR) is still required, documenting the patient's competence, mental status, as well as any other pertinent history and findings.

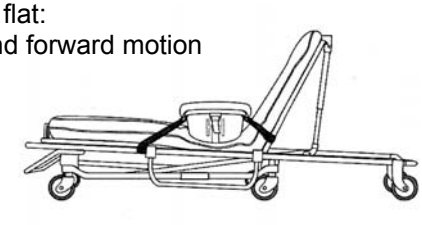
Contact with police and/or medical control in situations that are uncertain or unclear, or if a lack of care poses a serious threat to the minor may be required. If child abuse or child neglect is suspected, the EMT must contact police and/or medical control immediately if a refusal of care situation exists. Complicated or uncertain situations should be resolved by on-line medical control.

PATIENT TRANSPORT

An ill or injured child must be restrained directly to the cot in a manner that prevents ramping or sliding in a collision:
A belt/strap looped over each shoulder and attached to a non-sliding cot member.
A soft, sliding, or breakaway connector holding the shoulder straps together on chest
Belt/strap anchored to non-sliding cot member and routed over thighs, not around waist.
Note: Standard belt systems do not adequately secure child to the cot during a crash.

Ill or injured child/infant (5 to 40 lbs) who can tolerate a semi-upright position may be secured using a child passenger safety seat:
Use a convertible child safety seat that has a front and rear belt path
Position safety seat on cot facing the foot-end with backrest fully elevated
Secure safety seat with 2 pairs of belts in both the forward & rear positions
Place the shoulder straps of the haress through slots just below child's shoulders
For infants, place rolled towels on sides of child to maintain centered position.
Note: Non-convertible safety seats cannot be secured properly to the cot.

For infants who cannot tolerate a semi-upright position or who must lie flat:
Use car bed, if available, that can be secured against both rearward and forward motion
Position car bed across cot so child lies perpendicular to cot
Fully raise cot's backrest and anchor car bed to cot with 2 belts
Fasten car bed harness snugly to infant.



WELL CHILD TRANSPORT

There is no place in the patient compartment that is recommended for child passengers.
Well children should be transported in a vehicle other than the ambulance whenever possible.
Children may be transported relatively safely in the passenger seat of the driver's compartment if they are large enough to ride forward facing in a child passenger safety seat or booster seat.
If the air bag can be deactivated, the restrained, rear-facing infant can be placed in the passenger seat of the driver's compartment.

Use of Child Passenger Safety Seat After Involvement in Motor Vehicle Crash

Child safety seats may be used after involvement in a minor crash.
ALL of the following must apply to be considered a minor crash:
Visual inspection including inspection under movable seat padding does not reveal any cracks or deformation,
The vehicle in which the child safety seat was installed was capable of being driven from the scene of the crash,
The vehicle door nearest the child safety seat was undamaged,
There were no injuries to any of the vehicle occupants,
The air bags (if any) did not deploy.

RESPONDER REHABILITATION ON THE INCIDENT SCENE 6.10

It is important to continually monitor personnel for signs of exhaustion, stress, and or physical injury. Individual members are encouraged to report to the rehab at any time that they feel the need to do so. Symptoms may include weakness, dizziness, chest pain, muscle cramps, nausea, altered mental status, difficulty breathing, and others. No personnel will be permitted to continue emergency operations beyond safe levels of physical or mental endurance.

The intent of this policy is to lessen the risk of injury that may result from extended field operations under adverse conditions. This procedure shall not diminish the aggressiveness of any rescue or initial fire attack.

Regardless of physical well being, all personnel should report to rehab immediately following:
Strenuous Activity - forcible entry, advancing hoselines, Stokes evolutions, etc.
Thirty (30) minutes of operation within a hazardous/dangerous environment
The use and depletion of two SCBA bottles
Failure of SCBA

Turnout gear, helmets, masks and hoods should be removed immediately. Prior to ingesting anything orally, fluid or solid, it is recommended that the firefighter clean his/her hands and face with water and a cleaning agent, as provided by Rehab Section personnel. Personnel reporting here will receive evaluation and treatment for heat stress and injuries. The EMS unit assigned will advise the Rehab Section Officer of the necessity of medical transportation and extended medical attention requirements of personnel due to physical condition.

Additionally, the rehabilitation section (REHAB) will be utilized to evaluate and assist personnel who could be suffering from the effects of sustained physical or mental exertion during emergency operations. Rehab Section will provide a specific area where personnel will assemble to receive:

A physical assessment

Revitalization - rest, hydration and refreshments
Medical evaluation and treatment of injuries
Continual monitoring of physical condition
Transportation for those requiring treatment at medical facilities
Initial stress support assessment

At times, due to the incident size or geographic barriers, it may be necessary to establish more than one Rehab Section. When this is done, each section will assume a geographic designation consistent with the location at the incident site (e.g., Rehab South, Rehab North).

At incidents involving large life loss, or extended rescue operations (e.g., plane or train wreck), a debriefing team should be contacted and assigned to Rehab Section.

The Rehab Section and truck should be located adjacent to the Command Post whenever possible. A utility truck and the mobile canteen will also be assigned to this Section.

The Rehab Section should be divided into the following four sections:

ENTRY POINT

This is the initial entry point and decontamination area. Assigned personnel will collect passports from crews and take a pulse rate on all crewmembers. Any member who has a pulse rate greater than 120 will report directly to Section C, Medical Treatment and Transport, where they will be treated appropriately.

Members who do not require medical attention will then report to Section B, Hydration and Replenishment.

HYDRATION AND REPLENISHMENT

All personnel will be provided supplemental cooling devices, fluid and electrolyte replacement, and the proper amount of nourishment. Initial debriefing support will be provided in this section, if needed.

MEDICAL TREATMENT AND TRANSPORT

Personnel reporting here will receive evaluation and treatment for heat stress and injuries. The ALS unit assigned will advise the Rehab Section Officer of the necessity of medical transportation and extended medical attention requirements of personnel due to physical condition. Crews released from Section C will be released as intact crews to report to Section D.

The medical crew in this section will pay close attention to the personnel's:

Pulse
B/P
Body Temperature

After allowing 20 minutes for a cooling down period the pulse, blood pressure, and temperature will be rechecked. Any person with a pulse rate greater than 100 should have a longer rest period. Anybody who has a temperature greater than 101 or a blood pressure less than 100 systolic will need IV fluids and transportation to an appropriate medical facility. The attending ALS unit will follow applicable protocols and on-line medical control

Oral rehydration is recommended in the form of 1-2 quarts of fluids over a span of 15 minutes.
Body core temperature should be reduced by cooling the body.
Cool body temperatures gradually using misting systems, fans, etc.
Oxygen via nasal canulla or oxygen mask (humidified or nebulized).

Crews released from the rehab section will be released as intact crews to report for reassignment.

REASSIGNMENT

This critical section determines crews' readiness for reassignment. Diligent efforts and face-to-face communication with the Rehab Section Officer are required. The Rehab Section Officer will collect accountability passports from companies reporting to Section A - Entry Point. The passports will be placed on a status board and all personnel will be logged in. The log will indicate the assignments as directed by the Incident Commander. Personnel may be reassigned to operating Sections or released from the scene.

The Rehab Section Commander will update the Incident Commander throughout the operation with pertinent information including the identities of personnel/companies in Rehab, the personnel/companies available for reassignment, and the status of injured personnel. All personnel leaving Rehab will retrieve passports from the Rehab Section Officer.

EXPANDED SCOPE OF PRACTICE 6.11

Expanded Scope of Practice (ESP) refers to those EMT/paramedic activities that go beyond those procedures contained in NH EMS PROTOCOLS. They include but are not limited to the following examples, two of which are currently in Protocol Appendices:

Interfacility Transfers (i.e. Critical Care Transport)
Extended Care/Wilderness Medicine Protocols
Tactical paramedicine with Special Weapons And Tactics (SWAT) Teams
Flight paramedicine (i.e. Certified Flight Paramedic)
Indian Health Service Programs
Disaster Medical Assistance Teams
Metropolitan Medical Response Teams
Advanced Practice paramedicine
Paramedic Practitioner with On-Scene non-emergent Care Pathways
Mass Casualty Incident management activity beyond ICS: NBC incidents
Hospital-based paramedicine
Industrial-based paramedicine

These paramedic activities may be approved by the MCB and the Bureau of EMS within the Department of Safety with respect to care-guidelines, standards of training, performance improvement, community need and legal requirements.

INTERFACILITY TRANSFERS 7.0

INTRODUCTION

Interfacility transfer of patients to provide optimal medical care is a frequent, necessary, and inevitable occurrence that must be anticipated and planned for. Reasons for transfer include continuity of care, definitive care, access to advanced technologies, access to advanced diagnostics, obtaining a higher level of care, and patient preference. Transportation and care of these patients are fundamental roles of the EMS system.

Responsibility for patient transfer lies with the transferring physician, and must take into account the risk vs. benefit to the patient. Providing appropriate equipment, medications, and qualified staffing during transport is paramount to patient safety. Selection of these should be based on the requirements of the patient at the time of transfer, and in anticipation of foreseeable complications, deterioration, and medical needs that might arise during transport. Sometimes equipment and personnel in addition to, or in place of, the EMT and local ambulance service must be utilized. Options include physicians and nurses to complement EMT providers, and implementation of ground-based critical care transport units, or air medical transport. In order to effect a safe transfer, transferring physicians must be knowledgeable about their respective EMS system's provider and equipment capabilities. Out-of-hospital skills and protocols do not necessarily translate into the transfer setting. EMS personnel accompanying the patient must possess the assessment and treatment skills appropriate for the patient's needs, and be capable of recognizing and managing complications that occur during transfer.

Physicians and hospitals must also comply with laws regulating the transfer of patients. The Federal Emergency Medical Treatment and Active Labor Act (EMTALA) passed in 1985 as a part of the Consolidated Omnibus Reconciliation Act (COBRA). Under this law regulations exist concerning the evaluation, examination, treatment, stabilization, and transfer of patients with an emergency medical condition. Physicians should read and be familiar with this law in its entirety.

Initiation of a transfer should be a carefully coordinated effort by the transferring and receiving physicians, transferring and receiving facilities, and the transferring unit and personnel. The following provides a guideline for selection of appropriate NH EMS personnel to provide inter-facility transport of patients consistent with their current scope of licensure, protocols and training. Staffing, medical control, documentation, medications, transfer protocols, and procedures are addressed. The purpose of this document is to reconcile unique aspects of interfacility transfer with current NH EMS law, licensure, and acute care protocols. It should serve both as a guide and a maximum menu that includes both standard acute care protocols, and local options specific to each provider level. It is intended to provide flexibility where possible for individual agencies, institutions, and communities to meet their unique needs.

STAFFING

1 EMT Basic & 1 First Responder
- Stable Patient
- No IV infusions
- Oxygen for stable patient permitted
- Previously inserted Foley catheter
- Saline Lock permitted
- Automatic External Defibrillator (AED)
- PCA pump

1 EMT Intermediate & 1 First Responder
- Stable Patient with IV 0.9% NaCl (normal saline), Lactated Ringers, or D5W, or saline lock
- No ongoing medications administered, or anticipated
- Oxygen for stable patient.

 Previously inserted Foley catheter
 Automatic External Defibrillator (AED)
 PCA pump
 KCL (up to 40 meq/lt) maintenance pump infusion
 IV Infusion pump for non-pharmacologic agents

1 Paramedic & 1 First Responder
 Stable patient with potential for deterioration that can be managed by the paramedic
 Cardiac monitoring, manual defibrillation, cardioversion, transcutaneous pacing
 Intubated patients are allowed with second attendant
 Ongoing approved medication administration.*
 Medical monitoring, procedures, and medication administration consistent with skill set, approved medications, protocols, and licensure.
 Advanced airway management
 ACLS/PALS drugs and procedures
 Maintenance of previously initiated medication and therapies.*

Provider appropriate to the patient's requirements and condition attends the patient

Stable Patients: Defined as hemodynamically stable, those with a secure airway, and NOT in acute distress (e.g. active labor, chest pain, respiratory distress, dangerous dysrhythmias, shock, uncontrolled bleeding). Medical definitions of "stable" are not necessarily the same as the legal definitions used by EMTALA.

EMTALA specifies for non-pregnancy cases that "stabilized" means: "With respect to an emergency medical condition..[other than labor]..to provide such medical treatment of the condition as may be necessary to assure, within reasonable medical probability, that no material deterioration of the condition is likely to result from, or during transfer." With respect to a pregnant woman with contractions, stable is having delivered (including the placenta). Psychiatric patients are stable for interfacility transfer if they are "protected" from hurting themselves or others. This may be through the use of medication or physical restraints.

MEDICAL CONTROL

Provisions for patient medical care in transit must always be made. According to COBRA/EMTALA, patient care during transport until arrival at the receiving facility is the responsibility of the transferring physician unless other arrangements are made. Integral to this medical care provision are medical control, and who assumes medical responsibility for the patient during transport.

Transferring and receiving physicians should determine in-transit medical responsibility prior to transport. Sometimes, as in certain air-medical transport services or over-land critical care units, the transport is functioning as an extension of a tertiary center. It operates under that facility's protocols, medical directorship, and on-line medical control. In many instances, there are combinations of medical control elements and shared responsibility. For example, the EMS system operates under protocols authorized by their medical director. They also follow written transfer orders, within the scope of their protocols and licensure, authored by the transferring physician. Transfer orders are specific, and appropriate to the patient being transferred. Both the protocols and transfer orders provide off-line medical control.

While off-line medical control is requisite, provisions for on-line medical control are equally compulsory. Medical control through voice communication (on-line) must be available should the transport personnel need direction beyond their standing order capabilities in transit. Effectiveness of on-line direction depends upon a system that permits voice communication between the transport personnel and the appropriate physician. Transport personnel must have an identified, appropriate on-line medical control contact prior to

initiating transport.

Options for on-line medical responsibility and control during transfer include:

(1) Transferring physician assumes medical control.
(2) Receiving physician assumes medical control.
(3) Medical director or other physician designee of the transport unit assumes medical control.
(4) There is a shared, predefined responsibility between the transferring physician and receiving physician. A transfer of control en route occurs based on proximity, or distance based communication capability.
(5) Transferring facility's emergency physician assumes medical control.
(6) Receiving facility's emergency physician assumes medical control.

It is advisable that a medical responsibility policy determination be made in advance by hospitals according to their needs, patient requirements, and their unique situations. This may be done through a transfer committee or other appropriate means. Optimal patient care and safety are the primary considerations. Transferring physicians should be immediately available, or make other arrangements, for medical control communication via radio, cell phone or telephone when executing emergency transfers. If there is a communication failure, the transferring facility's emergency physician should be the first default on-line contact, and the receiving facility's emergency physician the second.

Three categories of medical control during interfacility transport are summarized below.

Offline: Transferring physician written orders including identification of receiving hospital, method of transport, necessary personnel, medical equipment, medication orders for the duration of the transfer.
The transferring physician should make staffing and equipment decisions based on the patient's current medical condition, and all reasonably foreseeable complications that might arise during the transfer. These complications should be within the scope of practice and authorization for the transport personnel to treat. EMTs cannot practice beyond the scope of their licensure and protocols. For optimal patient care and safety, a provider with complementary skills such as an RN or physician may need to augment the transfer team under certain conditions. The transferring physician is responsible under Federal laws for assuring that qualified personnel, with appropriate equipment, transfer the patient.

Offline: Protocols

Online: Transferring physician available for voice communication with transfer personnel (unless alternative arrangements are made)

EQUIPMENT

All equipment as required in Saf-C 5904.08 be available and functioning at the time of transfer. Advanced Life Support transfers must have appropriate equipment to deliver current ACLS/PALS care. This includes, but not limited to cardiac monitoring, defibrillator, cardiac pacer, pulse oximetry, blood glucose monitoring, basic and advanced airway equipment, suction, and IV pump.

PROCEDURES
EMS providers may perform procedures within the scope of their license and protocols if clinically appropriate, and in consultation with medical control if necessary.

*APPROVED MEDICATIONS
In the interfacility transfer setting where the medication is ordered and initiated in the health care facility or the home health care setting (i.e. hospice or home nursing care) prior to transfer, it is within the scope of practice of the paramedic to continue that medication during transfer.

HAZARDOUS MATERIALS EXPOSURE IN LARGE-SCALE/MASS CASUALTY INCIDENT 8.0

The goal of the Hazardous Materials Exposure in Large-Scale/Mass Casualty Incident is to prepare on a regional basis for a unified, coordinated and immediate emergency medical services (EMS) mutual aid response by prehospital and hospital agencies to, and the effective emergency medical management of, the victims of any type of Mass Casualty Incident (MCI).

Successful management of any MCI depends upon effective cooperation, organization and planning among health care professionals and administrators in hospitals and out-of-hospital EMS agencies, state and local government representatives, and individuals and/or organizations associated with disaster-related support agencies.

PATIENT DECONTAMINATION

Only properly trained and protected personnel should conduct patient decontamination. The decon-system is established by the fire department/hazmat team and EMS personnel should work cooperatively with them during decontamination process.

Patient decontamination is only required when there is a risk of secondary contamination. If the agent(s) is not known, decontamination should be carried out until the agent(s) is identified and a determination made that there is no longer a risk.

1. Gross Decontamination:
Immediate patient evacuation from the danger area.
Removal of patient clothing, jewelry and personal effects using a bagging and tagging procedure.
Rinse with water (preferably lukewarm) in the head-to-toe direction (avoid abrading skin with rough brushes).
Water may come from any available source.
Dried patient should don temporary clothing/cover and transfer to treatment location.

2. Secondary Decontamination:
Site will be determined by resources, continuing and emerging threats, and weather conditions; it may occur at hospital.
Wash thoroughly from head-to-toe with water using very soft brush or washcloth (avoid abrading skin).
Airway and open wounds should be the first areas cleaned.
Dried patient should don temporary clothing/cover and transfer to treatment location.

3. Definitive Decontamination:
Usually completed at the hospital, it involves additional washing and rinsing. In the case of radiation exposure, detection equipment will determine cleanliness. For other agents, clinical judgment will usually determine cleanliness.

Decontamination of Special Needs Populations:
Children and their families, elderly/frail, and patients with medical appliances will require more EMS staff and time for general assistance and may also require simultaneous basic life support assistance during decontamination.
• Keep children with their families as decontamination process is frightening and children may resist.
• Keep patients with existing medical conditions together with their caregivers.
• Utilize warm water and keep special needs patients warm and dry after decontamination.
• Use low-pressure water, soft wash cloths and protect airway and eyes.

Treatment During Decontamination

• If medication is required, limit administration route to intramuscular or medi-inhaler.
• Intravenous therapy and advanced airway interventions should be delayed until after gross decontamination.

Document exposure and treatment information on patient triage tags:
• Name of chemical(s)
• Amount and time of exposure
• Decontamination information
• Treatment/antidotes administered

Transport:
• EMS personnel transporting contaminated patients must have appropriate PPE.
• If ambulance has transported contaminated patient, it can only be used to transport contaminated patients until proper decontamination of ambulance.
• If necessary, contaminated patients of different triage categories can be transported in same ambulance
• Contaminated patients will not be transported by helicopter.

Personal Safety:
• **Personal protection is the highest priority** when responding to an incident where hazardous material exposure is suspected. **DO NOT ENTER THE HOT ZONE.** Only Hazmat Teams should ever enter the hot zone. Emergency response personnel caring for decontaminated patients should wear universal precautions including gowns, gloves, booties and goggles/face shields.
• If major hazardous material release:
Request specific staging information and be alert for clusters of injured patients.
Maintain safe location upwind and uphill of the site (at least 300 feet).
Observe strict adherence to hot, warm and cold zone areas for personal safety, decontamination & treatment.
Activate HAZMAT Response / Incident Command System.
Incident Command to notify NH Bureau of Emergency Management (603-271-2231) to request additional resources including law enforcement and pharmaceutical supply cache.

INITIAL TRIAGE

Triage systems such as START (adults) and JumpSTART (children) are designed for injuries and not for use in chemical incidents. Use of these systems without consideration of chemical exposure may lead to mis-triage, especially for agents with delayed symptoms onset.

Decontamination:
The need for decontamination is the “first triage” decision. Since decontamination can be a lengthy process, the “second” decision is which patient(s) are first to be decontaminated. The “third” decision is based on need for treatment during the decontamination process, as only simple procedures such as antidote administration can be accomplished while wearing PPE.

Triage:
Direct those who can leave the area to evacuate to a designated decontamination location. NOTE: As many victims may leave the scene without being decontaminated, it is imperative to notify hospitals as soon as possible in order to prepare for hospital-based decontamination of both ambulatory and non-ambulatory patients.

Immediate:
Patients demonstrating serious impairment of 2 or more major organ systems, seizing, altered mental status, unconciousness, severe respiratory distress, or hemorrhaging.
Cyanide exposure- active seizure, altered mental status or recent onset of apnea with preserved circulation. Nerve agent exposure- trouble breathing, twitching and/or vomiting, convulsing, post-ictal, decreased level of consciousness. Also patient with cardiac activity in the absence of spontaneous respirations.

Phosgene exposure- Airway symptoms within several hours and/or eye irritation or damage.
Radiation exposure- Vomiting starts less than 4 hours after exposure.

Delayed:
Patients who suspect exposure but who have no immediate life-threatening effects.
Cyanide exposure- Unconscious and breathing.
Nerve agent exposure- Patient without symptoms or has been given $\geq$ 4 mg of atropine and is recovering from effects of both agent and antidote. Require observation of at least 18 hours.
Phosgene exposure- skin lesions without eye or airway damage.
Radiation exposure- Vomiting starts 4 hours or more after exposure.

Minimal:
Patients able to walk and talk after exposure.
Cyanide exposure- Patient is asymptomatic more than a few minutes after exposure
Nerve Agent- Symptoms of miosis without other effects, may/may not require antidotes although observation required.
Phosgene exposure- very small skin lesion.
Radiation exposure- No vomiting.

Expectant/Deceased:
Deceased or appears to have pre-terminal injuries and/or insufficient responders for the number of casualties or definitive pre-hospital medical care is not available
Radiation exposure- Vomiting starts within 1 hour of exposure

Tagging Systems:
Use water-repellant triage tags with waterproof markers and attached to the patient
Indicate patient's triage priority, degree of decontamination performed, and medication received
Note: Waterproof tags of similarly colored surveyor's tape wrapped around patients' wrists/ankles may be used

CHEMICAL BURNS - ADULTS 8.1

Chlorine, Phosgene

BASIC STANDING ORDERS

Routine Patient Care.
If eye contamination occurred, irrigate with saline for 10-30 minutes until symptoms resolve.
Monitor for delayed effects as symptoms (mucus membrane irritation, cough, wheezing, choking) may not appear for 6-8 hours after exposure.
Consider ALS intercept.

INTERMEDIATE STANDING ORDERS

Obtain IV access if situation permits.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

Initiate cardiac monitoring if situation permits.
Consider aerosolized bronchodilators. See Asthma Protocol 2.1.

CHEMICAL BURNS - PEDIATRIC 8.1P

Chlorine, Phosgene

BASIC/INTERMEDIATE STANDING ORDERS

Routine Patient Care.
If eye contamination occurred, irrigate with saline for 10-30 minutes until symptoms resolve.
Monitor for delayed effects as symptoms (mucus membrane irritation, cough, wheezing, choking) may not appear for 6-8 hours after exposure.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

Obtain IV access if situation permits.
Initiate cardiac monitoring if situation permits.
Consider aerosolized bronchodilators per Asthma Protocol 2.1P.

NERVE AGENTS & ORGANOPHOSPHATES MCI - ADULT 8.2

BASIC STANDING ORDERS

Routine Patient Care: Assess for SLUDGE (salivation, lacrimation, urination, defecation, gastric upset, emesis)
Remove to cold zone after decontamination and monitor for symptoms
Treatment using Mark-1 Kit Autoinjectors only in Mass Casualty Incidents
Antidotal therapy should be started as soon as symptoms appear.
All injections must be given IM
Atropine (tube#1) should always be given before 2-PAM chloride (tube#2)
Assess symptoms and determine dosing according to the following guidelines:
Progressive Symptoms
If patient has 2 or more mild symptoms (vomiting, shortness of breath, wheezing, runny nose, miosis, twitching):
Administer one ADULT Mark-1 Kit
If within 10 minutes of receiving the first Mark-1 kit, patient develops more severe symptoms (altered mental status, severe secretions, loss of bladder and/or bowel control) Administer two additional ADULT Mark-1 kits in rapid succession.
Initial Severe Symptoms
If patient exhibits severe symptoms including convulsions/seizures:
Administer three ADULT Mark-1 Kits
AND
Administer one Adult Diazepam (10 mg) Auto-injector. Diazepam may be repeated at 10-15 minute intervals up to 3 auto-injectors (30 mg).
Maintenance Treatment
Administer one ADULT Mark-1 Kit every hour for three hours
Consider ALS intercept.

INTERMEDIATE STANDING ORDERS

Obtain IV access if situation permits.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

Initiate cardiac monitoring if situation permits
If symptoms persist after the adminstration of 3 Mark 1 kits:
Atropine: 2 mg IV, Repeat every 5 minutes until secretions cleared
AND
Pralidoxime: 1-2 gram IV over 30–60 minutes.

Diazepam 10 mg IM/IV, repeat every 5 to 10 minutes as needed
or
Lorazepam 2-4 mg IM/IV, repeat every 5 to 10 minutes as needed
or
Midazolam 2.5-5.mg IM/IV, repeat every 5 to 10 minutes as needed

Albuterol 2.5 mg in 5 mL normal saline via nebulizer

MEDICAL CONTROL MAY CONSIDER

Pralidoxime maintenance infusion: Up to 500 mg per hour (max. of 12 gm/day)

NERVE AGENTS & ORGANOPHOSPHATES MCI- PEDIATRIC 8.2P

BASIC/INTERMEDIATE STANDING ORDERS

Routine Patient Care: Asses for SLUDGE (salivation, lacrimation, urination, defecation, gastric upset, emesis).
Remove to cold zone after decontamination and monitor for symptoms.
Treatment using Mark-1 Kit Auto-injectors only in Mass Casualty Incidents.
Antidotal therapy should be started as soon as symptoms appear.
ADULT Mark-1 kit may be used for pediatric patients in a life-threatening situation with exposure symptoms.
All injections must be given IM.
Atropine (tube#1) should always be given before 2-PAM chloride (tube#2).
Determine dosing according to the following guidelines:
Child (13 to 25 kg): Administer one Adult Mark-1 Kit
Child (26 to 50 kg): Administer up to two Adult Mark-1 Kits based on progression & severity of symptoms
Child (>51 kg): Administer up to three Adult Mark-1 Kits based on progression & severity of symptoms

Children and Infants (≤12 kg): Use of Adult Mark-1 Kit in children ≤ 12 kg is not recommended. If no other source of atropine and pralidoxime is available within 90 minutes after severe nerve agent exposure, use of one Adult Mark-1 Kit should be considered.
If child has seizures and is ≥ 26 kg: Administer One Adult Diazepam Auto-injector.
Consider ALS/Paramedic intercept.

PARAMEDIC STANDING ORDERS

Initiate cardiac monitoring if situation permits.
Establish If IV access is feasible.
Atropine: 0.05 - 0.1 mg/kg IV/IO or IM (minimum dose of 0.1 mg, maximum single dose 5 mg), repeat 2-5 minutes as needed.
OR if available
AtroPenJr: Infant (< 15 lbs) one auto-injector (purple label/0.25 mg)
Child (15-40 lbs) one auto-injector (blue label / 0.5 mg)
Child (40-90 lbs) one auto-injector (red label / 1 mg)
AND
Pralidoxime 25 - 50 mg/kg/doses IV (maximum dose 1 g) or IM (maximum dose of 2 g), may repeat within 30-60 minutes as needed, then again every hour for 1 – 2 doses as needed.

Diazepam 0.3 mg/kg IV(0.5 mg/kg per rectum) (maximum dose 10 mg), repeat every 5 to 10 minutes as needed
or
Lorazepam 0.1 mg/kg IV/IM (maximum dose 4 mg), repeat every 5 to 10 minutes as needed
or
Midazolam 0.2 mg/kg IM, repeat every 5 to 10 minutes as needed

Albuterol 2.5 mg in 5 ml normal saline via nebulizer

PARAMEDIC MEDICAL CONTROL MAY CONSIDER

Praxlidoxime maintenaince infusion: 10-20 mg/kg/hr

0.2 mg/kg Midazolam sublingual, intranasal

NERVE AGENTS & ORGANOPHOSPHATES - PROVIDER PROTECTION 8.3

BASIC STANDING ORDERS

If first responder(s) display chemical poisoning symptoms:
Notify dispatch immediately.
All first responders will evacuate area until secured by Hazmat Team.
Remove clothing and decontaminate yourself and/or assist other responders.
Routine Patient Care: Asses for SLUDGE (salivation, lacrimation, urination, defecation, gastric upset, emesis).
Treatment using Mark-1 Kit Auto-injectors.
Use only if nerve agent symptoms are present. Mark-1 kits offer no prophylactic protection and use prior to appearance of symptoms may be harmful. All injections must be given IM.
Atropine (tube#1) should always be given before 2-PAM chloride (tube#2).
Assess symptoms and determine dosing according to the following guidelines:
Progressive Symptoms
If patient has 2 or more mild symptoms (vomiting, shortness of breath, wheezing, runny nose, miosis, twitching):
Administer one ADULT Mark-1 Kit.
If within 10 minutes of receiving the first Mark-1 kit, patient develops more severe symptoms (altered mental status, severe secretions, loss of bladder and/or bowel control).
Administer two additional ADULT Mark-1 kits in rapid succession.

Initial Severe Symptoms
If patient exhibits severe symptoms:
Administer three ADULT Mark-1 Kits.
AND
Administer one Adult Diazepam (10 mg) Auto-injector. Diazepam may be repeated at 10-15 minute intervals up to 3 auto-injectors (30 mg).

Maintenance Treatment
Administer one ADULT Mark-1 Kit every hour for three hours.
Transport self and any other first responder receiving Mark-1 therapy to hospital.

INTERMEDIATE STANDING ORDERS

Obtain IV access if situation permits.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

Initiate cardiac monitoring if situation permits.
If Mark-1 Kits are unavailable or IV access has been obtained:
Atropine: 2 mg IV, Repeat every 5 minutes until secretions cleared.
Pralidoxime: 1-2 gram IV over 30–60 minutes.
Pralidoxime maintenance infusion: Up to 500 mg per hour (max. of 12 gm/day).

Diazepam 10 mg IM/IV, repeat every 5 to 10 minutes as needed,
or
Lorazepam 2-4 mg IM/IV, repeat every 5 to 10 minutes as needed,
or
Midazolam 2.5-5 mg IM/IV, repeat every 5 to 10 minutes as needed.

Albuterol 2.5 mg in 5 mL normal saline via nebulizer

CYANIDE AND ARSENIC - ADULT 8.4

Cyanide compounds and arsenic trihydride

BASIC STANDING ORDERS

Decontamination concurrent with initial resucitation:
If patient exposed to gas only and does not have skin or ocular irritation, does not need decontamination.
If patient exposed to liquid, decontamination required. Avoid self contamination.
Routine Patient Care.
Pulsoximetry may be inaccurate and should be avoided
Asymptomatic patients should not be treated with entire cyanide antidote kit because of inherent toxicity
Administer amyl nitrite inhalant from cyanide antidote kit*
Crush 1-2 ampules into gauze.
Have patient inhale amyl nitrite through gauze or place gauze within facemask, over intake valve of bag-valve-mask device during assisted ventilation
Alternate amyl nitrite every 30 seconds with 100 percent oxygen.
Discontinue use when IV access obtained and sodium nitrite administered. If no IV access within 3 minutes, administer second capsule.
Consider ALS intercept/air medical transport

INTERMEDIATE STANDING ORDERS

Obtain IV access if situation permits.
Consider paramedic intercept.

PARAMEDIC STANDING ORDERS

Sodium Nitrite: 300 mg IV over 5 minutes or more (10 mL of a 3 percent solution).
Repeat half dose if symptoms persist after 20 minutes.

Sodium Thiosulfate: 12.5 g IV over 15 minutes (50 ml of a 25 percent solution).
Repeat half dose if symptoms persist after 20 minutes.

Note: Sodium thiosulfate may be considered as a single agent for treatment of cyanide poisoning, especially in suspected cases that have not been confirmed, or in a situation where they may be concurrent CO poisoning. In the case of CO poisoning it is reasonable to administer Sodium Thiosulfate first, and reserve the Sodium Nitrite for refractory cases.

*Cyanide antidote kit: each kit contains 12 ampules of amyl nitrite inhalant, 2 ampules of 300 mg sodium nitrite in 10 ml of water, and 2 ampules of 12.5 g sodium thiosulfate in 50 ml of water.

CYANIDE AND ARSENIC - PEDIATRIC 8.4P

Cyanide compounds and arsenic trihydride

BASIC/INTERMEDIATE STANDING ORDERS

Decontamination concurrent with initial resucitation
If patient exposed to gas only and does not have skin or ocular irritation, does not need decontamination.
If patient exposed to liquid, decontamination required
Routine Patient Care.
Pulsoximetry may be inaccurate and should be avoided
Administer amyl nitrite inhalant from cyanide antidote kit*
Crush 1-2 ampules into gauze.
Have patient inhale amyl nitrite through gauze or place gauze within facemask, over intake valve of bag-valve-mask device during assisted ventilation.
Alternate amyl nitrite every 30 seconds with 100 percent oxygen
Discontinue use when IV access obtained and sodium nitrite administered. If no IV access within 3 minutes, administer second capsule.
Consider ALS/paramedic intercept/air medical transport

PARAMEDIC STANDING ORDERS

Obtain IV access if situation permits

Sodium Nitrite: 0.2 to 0.4 ml/kg of a 3 percent solution IV.
Repeat half dose if symptoms persist after 20 minutes.

Sodium Thiosulfate: 1.65 ml/kg IV of a 25 percent solution.
Repeat half dose if symptoms persist after 20 minutes.

Sodium thiosulfate may be considered as a single agent for treatment of cyanide poisoning, especially in suspected cases that have not been confirmed.

*Cyanide antidote kit: each kit contains 12 ampules of amyl nitrite inhalant, 2 ampules of 300 mg sodium nitrite in 10 ml of water, and 2 ampules of 12.5 g sodium thiosulfate in 50 ml of water.

RADIATION INJURIES 8.5

Exposure to radioactive source or radioactive material/debris

BASIC STANDING ORDERS

Remove patient from scene and decontaminate by appropriately trained personnel.
Triage tools for mass casualty incident:
If vomiting starts:
within 1 hour of exposure; survival is unlikely and patient should be tagged “Expectant”.

- less than 4 hours of exposure, patient needs immediate decontamination and evaluation and tagged “Immediate”.

after 4 hours, re-evaluation can be delayed 24 – 72 hours if no other injury is present and patient tagged “Delayed”.
Routine Patient Care.
Treat traumatic injuries and underlying medical conditions.
Patients with residual contamination risk from wounds, shrapnel, and internal contamination should be wrapped in water-repellent dressings to reduce cross contamination.
Consider ALS intercept.
Consider air medical transport after proven definitive decontamination of patient.

INTERMEDIATE STANDING ORDERS

IV access and administer fluids to maintain systolic blood pressure >90 mmHg. if situation permits

PARAMEDIC STANDING ORDERS

Consider anti-emetic (see Nausea/Vomiting Protocol 2.13)
Consider pain control (see Pain Management Protocol 2.9)

2005 APPROVED MEDICATION LIST FOR NEW HAMPSHIRE EMS PROVIDERS

GENERIC NAME	TRADE NAME
ACETAMINOPHEN	TYLENOL
ACTIVATED CHARCOAL	
ADENOSINE	ADENOCARD
ALBUTEROL	PROVENTIL
AMIODARONE	CORDARONE
AMYL NITRITE	
ASPIRIN	ACETYLSALICYLIC ACID
ATROPINE	
ATROPINE (AUTOINJECTOR)	ATROPEN, ATROPEN JR.
BUMETANIDE	BUMEX
CALCIUM CHLORIDE	
DEXTROSE	GLUCOSE
DIAZEPAM	VALIUM
DILTIAZEM	CARDIZEM, DILACOR, TIAZAC
DIPHENHYDRAMINE	BENADRYL
DOPAMINE	
EPINEPHRINE	
EPINEPHRINE (AUTOINJECTOR)	EPI-PEN, EPI-PEN JR.
ETOMIDATE	AMIDATE
FENTANYL	SUBLIMAZE
FLUMAZENIL	ROMAZICON
FUROSEMIDE	LASIX
GLUCAGON	
HALOPERIDOL	HALDOL
IBUPROFEN	MOTRIN
IPRATROPIUM BROMIDE	ATROVENT
KETOROLAC	TORADOL
LEVALBUTEROL	ZOPENEX
LIDOCAINE	
LORAZEPAM	ATIVAN
MAGNESIUM SULFATE	
MARK-1 KITS	
METHYLPREDNISOLONE	SOLUMEDROL
METOCLOPRAMIDE	REGLAN
METOPROLOL	LOPRESSOR
MIDAZOLAM	VERSED
MORPHINE	
NALOXONE	NARCAN
NITROGLYCERIN	TRIDIL, NITROBID, NITROSTAT
NITROUS OXIDE PREMIXED WITH OXYGEN	NITRONOX®
NOREPINEPHRINE	LEVOPHED
ONDANSETRON	ZOFRAN
OXYTOCIN	PITOCIN
PHENYLEPHRINE	NEO-SYNEPHRINE
PRALIDOXIME	2-PAM, PROTOPAM CHLORIDE
PRALIDOXIME (AUTOINJECTOR)	2-PAM, PROTOPAM CHLORIDE
PROCAINAMIDE	PRONESTYL

GENERIC NAME	TRADE NAME
PROCHLORPERAZINE	COMPAZINE
PROMETHAZINE	PHENERGAN
PROPARACAINE	ALCAINE
ROCURONIUM	ZEMURON
SODIUM BICARBONATE	
SODIUM NITRITE	
SODIUM THIOSULFATE	
SUCCINYLCHOLINE	ANECTINE
THIAMINE	VITAMIN B1
VASOPRESSIN	
VECURONIUM	NORCURON
VERAPAMIL	CALAN

APPROVED INTERFACILITY MEDICATIONS

In the interfacility transfer setting where the medication is ordered and initiated in the health care facility or the home health care setting (i.e. hospice or home nursing care) prior to transfer, it is within the scope of practice of the paramedic to continue that medication during transfer.